# nationalgrid

March 1, 2021

The Honorable Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First St., N.E. Washington, D.C. 20426

> Re: National Grid LNG LLC, Docket No. CP16-121-000 Fields Point Liquefaction Project Monthly Status Report for February 2021

Dear Secretary Bose:

On October 17, 2018, the Commission issued the Order Issuing Certificate ("Certificate Order") granting a certificate of public convenience and necessity to National Grid LNG LLC ("National Grid") in the above captioned docket for the Fields Point Liquefaction Project (the "Project"). *National Grid LNG LLC*, 165 FERC ¶ 61,031 (2018). National Grid filed its acceptance of the certificate of public convenience and necessity on October 29, 2018 and the Implementation Plan was filed on November 1, 2018. As required by Environmental Condition 8 of the Certificate Order, National Grid is submitting the Monthly Status Report for the February 2021 reporting period.

Pursuant to Section 388.113 of the Commission's regulations, National Grid requests nonpublic treatment of the CEII documents contained in this submission so marked. The materials marked as "CUI//CEII" concern specific engineering and design information about the proposed liquefaction facilities that is customarily treated by the Commission as critical energy infrastructure information because it could be useful to a person planning an attack on critical infrastructure. The proposed Project once constructed will meet the definition of critical infrastructure in Section 388.113(c)(4) of the Commission's regulations. National Grid requests that the marked CUI//CEII material maintain that designation for the duration of this proceeding or the life of the facility, whichever is later. A form of protective agreement was filed as Exhibit Z-1 to the certificate application and appears at Accession No. 20160401-5169.

If you have any questions about this submission, please contact me at 781-392-6640.

Respectfully submitted,

|s| Patrick A. Chaney

Patrick A. Chaney Lead Project Manager – New England LNG Capital Delivery, Gas – Complex Project Management <u>Patrick.Chaney@nationalgrid.com</u>

cc: Service List

## MONTHLY STATUS REPORT FOR FEBRUARY 2021

On October 17, 2018, the Commission issued the Order Issuing Certificate ("Certificate Order") issuing a certificate of public convenience and necessity to National Grid LNG LLC ("NGLNG") in Docket No. CP16-121-000 for the Fields Point Liquefaction Project (the "Project"). *National Grid LNG LLC*, 165 FERC ¶ 61,031 (2018). Pursuant to Environmental Condition No. 8 of the Certificate Order, NGLNG provides its monthly status report for the month of February 2021.

#### Update on Federal Authorizations

As previously reported in the report for December 2018, all required Federal authorizations have been received.

## Project Schedule – Construction Status and Work Planned

Work Accomplished in February 2021:

- Training in the Environmental Inspector ("EI") duties occurred six (6) times this month
- Air monitoring in accordance with the Rhode Island Department of Environmental Management Short-Term Response Action Plan is ongoing and continued during this month.
- Set UOP Pretreatment modules
- Received and Set:
  - Crossover Box
  - LN2 Vaporizer A & B
  - Truck Loading Pump Skid (Staged in Laydown Yard)
- Continued with Pipe Installation: N/S Rack, E/W Rack, Compressor Building, E/W N2 sleeper rack, Pre-Treatment, Metering Skid
- Finished punch-listing available Structural Steel on N/S Rack, E/W Rack, Compressor Building
- Continued installation of Cable Tray along N/S and E/W Pipe Racks
- Continued Pulling Cable
- Completed preassembly of E/W Truss structural steel in the Laydown yard

Work Planned for March 2021:

- Receive and Set:
  - Remaining LN2 Storage equipment
- Continue with Pipe Installation: N/S Rack, E/W Rack, Compressor Building, E/W N2 sleeper rack, Pre-Treatment, Metering Skid
- Complete installation of Cable Tray along N/S and E/W Pipe Racks
- Continue Pulling Cable

## Problems Encountered and/or Instances of Non-Compliance and Corrective Actions

The problems encountered, contractor nonconformance/ deficiency logs, and each instance of noncompliance observed by the EI during this reporting period are shown below along with the corrective and remedial actions taken and the effectiveness of the implemented actions.

	Problems a	and Noncomplia	nce	
Date	Problem/Noncompliance	Remedial Action Taken	Date of Corrective Action	Effectiveness of Corrective Action
02/02/2021	Install erosion control blankets on sloped surfaces.	Erosion blankets installed.	02/05/2021	Effective restored erosion controls.
02/02/2021	Place oil filled equipment into secondary containment.	Equipment placed into secondary containment.	02/03/2021	Effective, equipment in secondary containment.
02/16/2021	Crushed stone tracking pad at exit of work zone requires maintenance.	Pads roughened.	02/19/2021	Effective, restored tracking pad.
02/16/2021	Asphalt road surface requires cleaning	Road surface swept.	02/22/2021	Effective, road surface cleaned.
02/16/2021	Secondary containment needs to be adjusted.	Containment adjusted.	02/18/2021	Effective, containment restored.
02/16/2021	Sheens observed in secondary containments.	Absorbent pads used to remove sheen.	02/18/2021	Effective, sheen removed.
02/22/2021	Add crushed stone to eroding area in truck loop.	Crushed stone added.	02/24/2021	Effective, restored erosion controls.
02/22/2021	Readjust filtrexx soxx.	Filtrexx soxx adjusted.	02/22/2021	Effective restored erosion controls.
02/22/2021	Remove filtress soxx.	Filtrexx soxx removed.	02/24/2021	Effective, damaged soxx removed.
02/22/2021	Crushed stone tracking pad at exit of work zone requires maintenance.	Pads roughened.	02/24/2021	Effective, restored tracking pad.

	Releases						
	Material and						
	Quantity			Corrective Action			
Date	Released	Cause	Description	Taken			
				Oil cleaned from			
				scaffolding with			
		Oil released	Oil released to	degreaser and rags,			
	4 ounces of	during equipment	scaffolding and	impacted crushed			
02/24/2021	lube oil.	inspection.	crushed stone.	stone removed.			
			Wind knocked				
		Bottle of oil was	bottle off of	Absorbent clay used			
	2 ounces	damaged by	shelf and was	to clean oil from			
02/25/2021	cutting oil	manlift.	stepped on.	concrete surface.			

## Landowner/Resident Complaints

None during this period

#### Correspondence Received from Other Agencies Concerning Noncompliance

No correspondence was received concerning instances of noncompliance from other federal, state, or local permitting agencies.

## **Special Inspector's Report**

See Attached Register and weekly reports

All site civil work requiring special inspection was, to the best of my knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions.

Yes	No	See discrepancies noted in the attachments
Special Inspector:		/s/ Charles Boisvert
Date:		February 28, 2021

SPECIAL INSPECTOR'S WEEKLY REPORTS

## [SUBMITTED AS A SEPARATE FILE]

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CUI//CEII CRITICAL ENERGY INFRASTRUCTURE INFORMATION REMOVED PURSUANT TO 18 C.F.R. §388.113

# ATTACHMENT

NON-CONFORMANCE REGISTERS

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-001	Contract section 3.20.6 states the Contractor shall be responsible to store, protect and maintain all equipment.	The equipment as noted above shall be fully inspected by the original equipment manufacturer to what ever extent necessary and then submit to Owner and recommended repairs that should be made	11/15/2019	6/22/2020	Vendor	Procurement
SR010-RPT-001A r1	Incorrect paint applied on vessels at GCAW was not properly addressed by Kiewit with a NCR per Section 18 of the QMS r3	UOP has agreed to blast the non-compliant vessels to achieve a SSPC-SP10 surface profile and repaint following the manufacturer's recommended procedure to apply a #14 system IZ/HS/HS paint system	07/31/19	9-30-2020	Vendor	Procurement
SR010-RPT-002	Section 12.0 of the Kiewit QMS requires all documents that are replaced to be stamped as voided or superseded	Kiewit to follow the Documents Control Procedure 102761-B- DMT-PRO-0001 section 6.3.4 Stamping and Document Notations	11/15/19	6/3/2020	Engineering	Engineering
SR010-RPT-003	National Grid requested Kiewit to provide (2) RT film packages for audit purposes related to the GCAW Adsorber PO. These documents were not provided after several requests spanning a (6) week period	National Grid to perform an audit on all RT film at the Vendor's facility	07/31/19	09/27/19	Procurement	Vendor
SR010-RPT-004	Kiewit did not follow their QMS r3 or contract requirements when changing the location of the load cells for the Micro Pile testing	Kiewit to provide refresher RFI training to field personnel on the RFI process to ensure RFI's are submitted in a timely manner.	09/09/19	09/09/19	Contractor	Construction
SR010-RPT-005	Piping specifications showed the incorrect NFPA-59A specification. The piping specification showed the 2019 version versus the 2001 version.	Kiewit issued a code revision RFI to NG referencing all piping specifications were revised to remove the NFPA 59A 2019 reference	08/27/19	09/27/19	Engineering	Engineering
SR010-RPT-006	Kiewit Project Specific Procurement Plan 102761-B-QLT-PLN-0002 requires any discrepancies or damaged materials will be tagged or labeled accordingly and isolated in the warehouse, laydown area or receiving QA/QC holding areas pending resolution. Underground piping was received at project site without documentation and the piping was not properly stored or marked as quarantined.	Place the referenced piping material into the specified quarantine area and properly mark as do-not-use	10/21/19	10/21/19	Quality	Quality
SR010-RPT-007	Kiewit did not notify National Grid for the off-site testing of the Feed Gas Booster Compressor in accordance with Section 2.23 of the Contract.	Procurement and OSSQ shall review the requirements for notification of off-site testing to ensure National Grid is properly notified in the required time frame.	11/15/19	05/28/20	Procurement	Quality
SR010-RPT-008	Incorrect hydro test pressure and hold time for firewater line. Test was not conducted in accordance with NFPA 24.	The firewater spools in question will be retested in the overall firewater system test to be performed on site at a later date. No further action required	09/27/19	09/27/19	Engineering	Engineering

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-009	A Master Inspection Test Plan (MITP) was provided to allow National Grid to determine which vendor inspections/meetings that National Grid wanted written notification to attend. National Grid populated this document with the required Hold/Witness points which included a hold point for "Final Inspection Prior to Shipment (first shipment)" (see attached). This inspection was noted as a hold point by the Client and the Client was not notified of the inspection step.	Revisit the requirements for Client notification of vendor testing with all personnel related to this requirement, document the training and provide National Grid with a responsibility matrix to ensure proper notification is achieved on future inspections.		05/29/20	OSSQ	OSSQ
SR010-RPT-010	Kiewit is required to provide the off-site vendors with the requirements of the contract between National Grid LNG LLC and Kiewit Power Constructors Co. Section 3.10 Welding Requirements was not conveyed to ABB for off-site construction.	Vendor ABB submitted weld procedures as required	08/08/19	09/27/19	Procurement	Procurement
	Section 3.21.23 of the Contract states "the Contractor shall provide a fully functional, integrated, electronic data and document management system". TeamBinder which is the existing Document Control Management system has not proved to be a functional system. This system has shown to be unable to consistently provide access by the Owner to the technical documents for review which are related to this project both for pre-suspension and post suspensions documents. Large data dumps are transmitted without regard to previous review and comments by Owner. Documents have been removed from the obligatory (10) day period prior to period completion. Comments made by the Owner during the document has been subjected to Beta testing of system changes which has proven to be ineffective and confusing to the overall document control procedure.	Provide the Owner wit a functional system that is capable and will permanently correct the discrepancies as noted in section "A" above.	01/15/20	01/15/20	Engineering	Engineering
	Section 7.2 Procurement Strategy of the prime Contract requires a Supplier shipment to be inspected by the Contractor to ensure compliance with Project Specifications. The first shipment for the UG piping did not receive a final release shipment	See Addendum "A" attached to the NCR report	05/21/20	05/28/20	OSSQ	Procurement
SR010-RPT-013 R2	Prime Contract Attachment 7 requires APCI to comply with NFPA 59A. A data review of the quality documents noted the actual NDE performed was not in compliance with the NFPA 59A requirements. A review of documentation for the Cross over Bridge piping did not reflect this requirement. Revision 1 added the contract requirements noted in Section 3.10 - SOW		04/13/20	05/28/20	Vendor	Vendor
SR010-RPT-014r1	Prime Contract Section 3.10 Scope of Work requires all procedures for welding of piping, vessels and equipment performed off-site shall be submitted to the Owner for review and approval prior to construction.	Kiewit will comply with the requirements of the Prime Contract	09/27/19	11/15/19	Vendor	Vendor

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-015 R2	review of the quality documents noted the actual NDE performed was not in	Evaluate the correct NDE requirements as required by NFPA- 59A-2001 and contract. Perform the necessary additional NDE as required to meet compliance for the Cold Box fabrication.	04/13/20	6/22/2020	Vendor	Vendor
SR010-RPT-016	UOP/GCAW equipment data books were reviewed by National Grid and found to be non-compliant with contract requirements	Kiewit shall review the data books for the equipment as mentioned above and perform the necessary tasks so the data books comply with contractual requirements.	05/28/20	11/13/20	Vendor	Procurement
SR010-RPT-017	UOP/GCAW equipment data books were reviewed by National Grid and found to be non-compliant with contract requirements	Kiewit shall review the data books for the equipment as mentioned above and perform the necessary tasks so the data books comply with contractual requirements.	05/28/20	10-6-2020	Vendor	Procurement
SR010-RPT-018	Kiewit Site Specific Procurement Plan requires all contracts with risk level of 4 or 5 to conduct kick-off meetings upon execution of the contact.	Kickoff meetings with all suppliers signed up pre-suspension rated as 4 or 5 on the Master ITP have had kickoff meetings pre-suspension and during project re-initiation. An additional Prefab Quality meeting will be held as indicated in MITP	09/27/19	11/15/19	Procurement	Procurement
SR010-RPT-019	Kiewit Site Specific Procurement Plan requires development of a Master ITP Plan including Witness and Hold Points, FAT Test, quality audits and any additional recommended in-process shop inspection. These activities shall include dates.	Kiewit is to provide an updated and completed Master ITP that complies with the requirement as noted in the Project Specific Procurement Plan 102761-B-QLT-PLN-002	11/15/19	06/04/20	Procurement	OSSQ
SR010-RPT-020	A ground Water monitoring well (mw) was identified in Kiewit's work area for Field Point Liquefaction Project in an area that required placement of several feet of fill. National Grid SIR provided guidance to Kiewit on closure of the mw in accordance with RI DEM requirements, prior to placement of the fill material. Kiewit did not follow proper closure procedures and did not notify On-site environmental for required oversight of mw closure procedure.	Kiewit is to notify National Grid SIR with proposal to locate and properly close the ground water monitoring well in accordance with RIDEM requirements. The mw closure shall be witnesses and approved by the National Grid SIR representatives.	11/15/19	11/15/19	Contractor	Construction
SR010-RPT-021	During the course of the Civil Audit #102519-002 performed at site; Checklist Item 4.0 (c) Has proof rolling been approved by the Geotechnical Engineer in coordination with the Field Representative? The audit team stated that the Geotechnical Engineer was not notified in accordance with Section 4.9 of the Earthwork Specification – 102761-B-CIV-SPC-0001. The audit team was unable to provide documentation supporting the requirement was met.	Proof rolling as described and shown meets the project requirements - M. Oakland Kiewit will b e submits a Corrective Action with Preventive actions for procedural adherence - COB 4-3-2020	04/03/20	6/23/2020	Contractor	Construction

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-022	During the course of the Civil Audit #102519-002 performed at site; Checklist Item 3.0 (g) Does the Geogrid meet the requirements as required by Earthwork Specification section 3.12. Documentation showing approval for the Geogrid materials was not provided prior to construction and were subsequently approved by the Geotechnical Engineer on 10/24/2019 which is after the placement of the materials. The audit team was unable to provide documentation supporting approval prior to the start of construction.	Received supporting documentation	01/07/20	01/07/20	Contractor	Construction
SR010-RPT-023		Kiewit to provide National Grid proof that a hydro test was conducted as required by ASME VIII Div.1 or have Chart perform a hydro as required. National Grid will be notified as required to attend the testing of the vessels in question.	11/15/19	7/8/2020	Vendor	OSSQ
SR010-RPT-024	Section 3.10 of the Prime Contract NUMBER 4400005216 requires Kiewit to submit all welding procedures for piping, vessels and equipment performed off- site to Owner (National Grid) prior to start of construction. Kiewit Is required to review the welding procedures for project compliance prior to submittal for National Grid review. The welding procedures for IFS's subcontractor, Transend were not submitted to Owner for approval after review by Kiewit.	Attachment 1 includes the approved WPS	05/20/20	5-21-2020	Contractor	OSSQ
SR010-RPT-025	scheduled dates for the conduct of, and opportunity to witness, the off-site testing. Kiewit allowed IFS/Transend to conduct a hydrotest of the Feed Gas Filter without providing National Grid proper notification of the test	Kiewit to provide documentation for the notification of Witness Points no less than (10) business days to provide National Grid the opportunity to witness off-site testing, For this specific case Kiewit provided an opportunity to National Grid for review of the hydrotest documentation of the Coalescing Filter Tag# D-0200 on 2/13/2020. Report is attached. The Findings documented in the report have been closed and a copy of the Findings Log is included.	05/20/20	5/26/2020	OSSQ	OSSQ

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-026		Rebuild and replace tube bundle performing all required testing as per the contractual requirements.	05/26/20	6/8/2020	Vendor	OSSQ
SR010-RPT-027		Rebuild and replace tube bundle performing all required testing as per the contractual requirements.	05/26/20	6/8/2020	Vendor	OSSQ
SR010-RPT-028	states the purpose of said procedure is to establish a continuous improvement	Kiewit will preform CAR's as trends are found . See attached 3 CAR's Kiewit and National Grid had a call between the quality groups and agreed on a path forward.	05/27/20	7/8/2020	Quality	Quality
SR010-RPT-029	states this procedure is to verify the overall effectiveness of the quality program along with proper implementation. It will also ensure work is conducted in	Kiewit will updated the Quality Audit Schedule. Kiewit and National Grid quality groups meet via a conference call and agreed the attached audits performed by Kiewit meet the audit requirements. Kiewit will invite National Grid to attend future audits.	04/10/20	6/4/2020	Quality	Quality

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-030	welding of piping, vessels and equipment performed off-site to be submitted to the Owner for review and approval prior to construction. This requirement is also noted in the Contract between Kiewit and Patterson Horth in Sub-contract SC- 7200002536 Compressor Building. Nucor, sub-vendor to Patterson Horth has refused to submit the required welding procedures claiming such procedures as company proprietary information.	Require Patterson Horth/Nucor to formally submit welding procedures and quality deliverables through TeamBinder for National Grid review and approval prior to commencing any welding work.	04/22/20	5/29/2020	Procurement	OSSQ
SR010-RPT-031		All Kiewit Project Engineering Staff must attend training on the project MOC procedures which will be conducted by Ryan Terry of PSRG Kiewit agrees to the above disposition 4/1/2020	04/20/20	5/29/2020	Engineering	Engineering
SR010-RPT-032	Specification 102761-B-CIV-SPC-0001 REV 01 states in Section 4.15	Kiewit will remove the non-compliant backfill and replace in 6" lifts for the area of Duct Bank 7 and follow the 102761-B-CIV- 0001 Earthwork Specification going forward.	04/02/20	7/8/2020	Contractor	Construction
SR010-RPT-033	Section 4.6.2.3 states Form removal shall be in accordance with ACI 301/ACI 301M and the following, which further states certain forms could be removed in	Kiewit to submit a plan to National Grid for review and approval that does not require a compressive strength values as a determine factor in form removal or submit a compressive strength value to be met prior to form removal.	6/24/2020	7/8/2020	Engineering	Construction

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-034	or resolve the issue in a timely manner. National Grid has (4) NCR's generated during 2019 without agreed dispositions; (14) NCR's generated during 2019 that are open without closure.	Kiewit will provide National Grid with an updated status for all open NCR's along with a schedule detailing projected dates for open NCR dispositions and closures. Kiewit will make NCR update party of the weekly client meeting with National Grid in order to keep the team focused on closing out the currently issued NCR's as well as any future NCR's issued on the project.	05/26/20	5/28/2020	Quality	Quality
SR010-RPT-035	National Grid performed an audit on legacy film for the 3886 LD-1000/C Adsorber at the GCAW facility and rejected the Number 4 weld on Nozzle "B" due to chemical stains rendering the film non-compliant with code requirements.	Open pending additional information	05/26/20	7/17/2020	OSSQ	OSSQ
SR010-RPT-036	shall not be unreasonably withheld. Kiewit has on multiple occasions removed and replaced Key Personnel on the Project with new personnel without proper notification and/or approval.	Provide owner with current Organizational Chart that provides names to the positions as noted in Appendix "I", and submit resumes on all Key Personnel that have changed within the last (90) days.	05/29/20	5/29/2020	Project Management	Project Management
SR010-RPT-037	provides requirements for the Contractor to submit documents for Client review and approval. These requirements are addressed in the Scope of Work Section 2.25 and further in Appendix "U". The attached Kiewit TRN # 02088 shows (10) Piping Material Specifications that were revised without providing documents to	Summarizing the actions from the Document Control Breakout Meeting on March 25, 2020, National Grid will expand the table in Section 4.4 of the Scope of Work and List of Deliverables to expand upon the deliverables National Grid would like to formally review and approve and Kiewit will determine the appropriate methodology to facilitate those reviews. Kiewit will update the Document Control procedure with the mutually agreed table and resolve any outstanding National Grid comments. In the interim, the project will continue the current document review communication process of National Grid/CHIV submitting comments, and Kiewit responding to all comments, even if the comment is not incorporate, and regardless of document type, content of comment, or timing (i.e. when the document was issued).	04/10/20	5/29/2020	Engineering	Engineering

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-038	as-built drawings as required by the statement above for piling and other civil activities	Kiewit will produce a set of "E" size drawings for all past and future construction activities where as-built conditions have been generated. These drawings will be made available to all National Grid personnel anytime construction activities are taking place on site. The drawings set will be updated immediately upon changes or issuance of the IFC construction drawings that effect or change the original approved design or Scope of Work.	04/03/20	6/3/2020	Engineering	Engineering
SR010-RPT-039	"Development of up-to-date equipment lists, Drawings, specifiation0s, and requisition schedules. Frequency to be agreed with Owner as appropriate". National Grid has made repeated requests for Kiewit to provide an updated Drawing Index on a weekly basis and this has not happened.	Kiewit shall produce an updated drawing index in an acceptable format for all IFC/IFD/IFI drawings and submit such list to National Grid Engineering by COB on each Friday during design and construction of the LNG Facility	4/6/2020	6/17/2020	Engineering	Engineering
SR010-RPT-040	The contract requires Kiewit to develop within (45) days after Full Notice to Proceed (FNTP) a Project Procedure Manual and as the prime purpose of the PPM is to ensure consistent project processes and procedures. National Grid has requested that Kiewit develop a Site Specific Document Control procedure for over (8) months and as of this date the referenced procedure 102761-B-DMT- PRO-001 FPLP Document Control Procedure has not fully addressed the Owner's comments as contractually required.	Kiewit shall immediately produce and implement the Client's comments in the referenced Document Control Procedure and submit as IFC to the project.	6/2/2020	6/2/2020	Project Management	Project Management
	Construction Manager on Friday March 20th, 2020 which outlined the steps and notification requirements for the proposed activity. Kiewit performed the work on Monday March 23rd without notifying the proper personnel as provided by National Grid.	Kiewit to perform a root cause analysis that shall accompany this NCR. The root cause shall be submitted to National Grid for review and approval and a subsequent discussion shall follow. Additionally a Corrective Action shall be generated as this is a recurring event where steps and notification requirements are not followed.	04/01/20	7/8/2020	Project Management	Construction
SR010-RPT-042	at the Highland Tank facility (Report #200408 Highland Tank). There were multiple findings during this visit which included (1) U-1A form requires correction (2) Multiple X-ray reports were found to be non-compliant; missing IQIs, missing "F" markers, missing acceptance noted on report (3) PMI Testing showed low values on nickel composition (4) Missing NDE testing prior to hydro	Kiewit to perform a root cause analysis that shall accompany this NCR. The root cause shall be submitted to National Grid for review and approval and a subsequent discussion shall follow. Additionally a Corrective Action shall be generated as this is a recurring event where documentation review uncovers multiple findings subsequent to a recent OSSQ Inspection. All items as noted in Section "A" are required to be corrected as required to a compliant status with project and code requirements.	5/21/20	7/22/2020	OSSQ	OSSQ

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-043		The equipment as noted above shall be inspected by either National Grid or a 3rd party inspector, suitable to National Grid to what ever extent necessary and then any repairs, if applicable, shall be corrected to National Grid's satisfaction. Kiewit shall immediately provide a P&M procedure which will include the building and installed electrical gear in accordance with the manufacturer's requirements. The P&M procedure shall provide details of how the preservation requirements will be maintained during shipment and during storage on site.	5/21/2020	5/13/2020	Engineering	Engineering
SR010-RPT-044	The Prime Contract requires Kiewit to provide Client with a copy of any Supply Contract within (10) days after request by Owner. National Grid has requested Kiewit to provide a SDS (Supplier Document Schedule) showing quality deliverables and schedule for the Compressor Building contract. As of this writing, the SDS has not been provided.	Kiewit shall provide National Grid Supplier Document Schedule as requested.	5/21/2020	6/1/2020	Procurement	Procurement
SR010-RPT-045	The Prime Contract, Vendor Contract and Vendor and Subcontractor Document Control and Expediting Procedure provide requirements for Vendors and Subcontractors to provide documentation deliverables per the Seller's Deliverable Schedule. The submittal process shall use the Vendor Data Module of InEight Document (TeamBinder). Additional requirements also state the type of quality deliverables required for submittal. The QA/QC program requirements are passed on to the second-tier suppliers and that the subcontractor enforces them. Nucor, a subcontractor to Patterson Horth has refused to submit the quality deliverables as so required through InEight for Owner review and approval.	Kiewit shall require NUCOR, as a subcontractor to Patterson Horth, to submit all required quality deliverables through the InEight/TeamBinder system for review and approval by Client.	5/20/20	8-13-2020	Procurement	OSSQ
SR010-RPT-046	Section 3.10 of the Contract requires all welding procedures to be submitted to Owner for review and approval prior to construction. The Base plates for the PDC column drawing 102761-00-0000-sTR-SF-5806 detail 1 were modified to use a welded embed rod versus the anchor bolt as called out. The fabrication was performed off-site and subsequently installed without Owner approval of welding procedure or welder qualification.	Kiewit shall require the outside fabricator to provide a WPS, PQR and Welder Certifications for Client review. Kiewit shall also provide CMTR's for the base plate and embed rod used in this application. This NCR will prevent the setting of any equipment on the referenced foundation until the NCR is closed.	06/24/20	01/07/21	Procurement	Quality
SR010-RPT-047	Drawing 102761-B-00-0000-STR-SF-5175 detail 8 shows using Mirafi 180N or equal geotextile fabric. The 3rd lift construction used Mirafi 140N instead of the required 180N. This substitution was not approved by Engineering prior to the placement and is considered non-compliant with the specification.	National Grid is requiring a Corrective Action Report be initiated for this specific occurrence and the CAR shall cover the procurement, receiving and installation of the non- compliant product. The CAR must follow the requirements of 102761-B-QLT-PRO-0011 Corrective and Preventive Action procedure.	6/2/2020	8/18/2020	Contractor	Quality

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-048	Kiewit procured base plates for the PDC building columns from an outside vendor. The base plates required welding (4) 1" diameter embed rods to the plate in accordance with Kiewit RFI-000161 replacing the previously designed anchor bolts. The welding of the embed rods was performed and installed. A review of the Weld Procedure and Welder Qualification Records provided from the outside vendor showed the welder was qualified for maximum 3/4" thickness in accordance with AWS D1.1 but the overall rod welded was 1" diameter for which was outside the welder's qualified limitations. Kiewit failed to properly review and vet the outside vendor for the work performed.	The base plates as installed are to be removed and properly welded with qualified welders and replaced by a method suitable to National Grid. The repeated failure by Kiewit to follow the contract and/or procedures will require a Corrective Action Report to be generated on this specific instance which will be submitted to NG for review and approval.	7/15/2020	10/15/2020	Contractor	Construction
SR010-RPT-049	Kiewit's Thermal Control plan dated December 5, 2019 provides specifications and tolerances for mass concrete pour temperatures delta between core and near surface . Section "F" of this specification limits the temperature delta between the core and near concrete surface to a maximum of 35° F during the first 4 days. The pour was placed on 5/28/2020 and the attached data log shows for a period of approximately (8) hours between 5/30/2020 @ 5:08 AM until 5/30/2020 @ 12:08 PM the monitored temperature differential was in excess of 35° F (see attached log).	Further testing and observation found the concrete did not exceed the 185 degrees (F) per the Thermal Control Plan Table 6.2.2.2	7/5/2020	7/17/2020	Contractor	Construction
SR010-RPT-050	Hudson Products, subcontractor to Kiewit, submitted their ASME Welding Process Usage Log for National Grid review and the review showed the continuity lacked full traceability to show the welders welded with their qualified process(es) during the previous welding periods as required by ASME Section IX. Hudson is contracted to provide Air Cooled Heat Exchangers and structural steel supports for this product. National Grid will not accept any welders used for the ACHE and/or structural steel fabrication that do not have full traceability of qualifications and welding continuity.	Continuity package to be reviewed prior to hydrotest	7/15/2020	07/15/20	Vendor	OSSQ
SR010-RPT-051	Kiewit provided National Grid with a data package to document current work as performed on the compressor building structural steel. The review identified (5) Welder Performance Qualification Records(WPQR) that were not signed by a qualified person at the time of welder testing rendering these records as non-compliant and the welders non-certified. AWS D1.1 Structural Welding Code - Steel requires qualified personnel to witness visual acceptance of the welds and visual acceptance of the destructive bend test. The welder I.D.'s are as follows: #7, #14, #15, #25, and #91.	All welds that were deposited by the above referenced welders are rejected and must be either cut-out and re-welded or replaced with completely new fabricated members. Other alternative corrective methods may be submitted to Client for their approval.	8/14/2020	8/14/2020	Vendor	OSSQ
	Kiewit Specification 102761-B-MEC-SPC-0007 shows ASTM A182 fittings and flanges are allowed but Note (2) in the Fluid Limitation section states that material sourced from the Peoples Republic of China is not allowed for hazardous systems including but not limited to Fuel Gas, Feed Gasetc. The Q-Sonic flow meter housing and various components show the material was manufactured in China as shown by the Material Test Reports.	Remove and replace the flow meter with a Q-sonic flow meter with non-Chinese materials per the project specifications.	01/07/21	01/07/21	Vendor	OSSQ

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
SR010-RPT-053	(1) APCI Line List shows line 2402 as a Nitrogen Service with a maximum design pressure of 1100 PSIG. (2) Kiewit's "Pressure Containing Material Sourced from The People's Republic of China Specification" 102761-B-MEC-SPC-007 under the notes section, states " Materials not specifically listed in this table are not allowed to be sourced from the People's Republic of China, unless specifically approved by the Contractor" (3) The Specification only allows P8-Stainless Steel Piping material under (500 psig) design pressure (higher pressures are not included for this material grade.)	Remove and replace the non-compliant material with non- Chinese material or a compliant project specific material which is acceptable	01/08/21	01/08/21	Vendor	OSSQ
SR010-RPT-054	RXB050 show a vertical gusset weld detail with a (3/16") fillet weld 2-6" staggered on both sides of the gusset. The weld out did not meet this requirement which resulted in a weld-out of 2-12" on each side of the gusset, The attached pictures show the actual weld which is not compliant with the shop drawing weld detail.	area shall be coated with a cold galvanizing component.	10/8/20	10/21/20	Vendor	OSSQ
SR010-RPT-055	Section 4.9 Units and Scale Ratio's of the Contract Scope of Wok states "Weights and measures shall be in the English system and all instruments such as pressure gauges, thermometers, etc., shall be graduated in English units as the primary scale" The ABB Transformer's oil temperature gauge is calibrated in Celsius units.	Replace the non-compliant temperature monitors with the proper scale as per the contract requirements.	10/20/2020	Open	Vendor	OSSQ
SR010-RPT-056	B-STR-MEM-7101 Rev 1 states in the Exclusion and deviation for erection up to 34 ft TOS EL (bullet item #2) The valve access platform to the south of column line A between column lines 6 & 7 shall not be erected at this stage. This	A root cause analysis was performed and a Corrective Action Report detailing the plan to prevent recurrence has been developed. Please see CAR 003 for detaiols of the cause and corrective actions bo be implemented to prevent recurrence. The CAR will stay open until the corrective actions prove effective.	01/07/21	01/07/21	Contractor	Construction
SR010-RPT-057	Field construction attempted to install Column A-1 for the Compressor Building and were unable to complete the task because of rebar interference with the column key. The field construction commenced cutting the interfering rebar with a Sawzall before receiving authorization from Engineering to perform this task. See picture below. Changes made to design require Engineering written approval prior to performing work.	Engineering is to evaluate the cut rebar and determine if corrective action is required. Kiewit to perform a Root Cause Analysis to investigate the continuing action of performing work without written authorization and submit to National Grid for review and approval.	10/21/20	10/21/20	Contractor	Construction
SR010-RPT-058	specifications resulting in the outlet opening being (1.8") higher than project requirements. This discrepancy changes the system invert elevation and has a potential impact on the overall storm water system operation.	Kiewit is to remove and replace CB107 with a compliant catch basin or provide an Engineering corrective action that will meet the project invert elevation requirements on the outlet piping. Any repairs or modifications to the existing catch basin CB107 or related piping will require National Grid's review and approval.	Open	Open	Contractor	Construction

Project #:	90000130901 Project Name:	Field Point Liquefaction Project Providence, RI				
NCR Ref:	NCR Description	Agreed NCR Corrective Action	Date of Agreed Disposition	Date of Closure	Probable Cause	Discipline
	Kiewit submitted a red-line drawings (see attached) that will change the original grounding grid design around the E/W Pipe rack. The drawing and changes have not been released by Kiewit Engineering and a RFI supporting the changes has not been submitted to National Grid for review and approval.	Kiewit Engineering shall review the proposed changes and submit a RFI to National Grid for review with proposed red-line drawing.showing the necessary changes to be made.	Open	Open	Contractor	Construction
SR010-RPT-060	Facility equipment and systems to the Owner's Representative for information prior to such erection being carried out on the Work Site." National Grid	Kiewit is to follow the Contract requirements as listed in Section 4.12 and Section 3.21.2 by providing detailed method stated and risk assessments to Nation Grid at least one week in advance of the construction activities. These method statements shall be required for erection of all LNG Facility Equipment and systems as noted in Section 4.12	Open	Open	Contractor	Construction
SR010-RPT-061	Prime Contract 4400005216 Scope of Work Section 4.12 requires the Contractor to submit copies of the erection procedure for all LNG Facility equipment and systems to the owner's representative prior to such erection being carried out on the work site. Additional requirements are addressed in Section 3.21.2 which requires the Contractor to submit detailed method statements and risk assessments to be prepared and made available to the owner for review and comment at least one week in advance of the commencement of the related Work Site construction activities. Kiewit has placed several pieces of equipment on the project without submitting the required erection procedures.	Kiewit is to follow the Contract requirements as listed in Section 4.12 and Section 3.21.2 by providing detailed method stated and risk assessments to Nation Grid at least one week in advance of the construction activities. These method statements shall be required for erection of all LNG Facility Equipment and systems as noted in Section 4.12	Open	Open	Contractor	Construction
SR010-RPT-062		Follow the complete set of requirements for the storage of the Booster Compressor as noted in the Lay-Up Plan for the L- 0309 Compressor. Hold a pre-activity meeting within a week of equipment arrival to cover requirements for the initial inspection, preservation and rigging/setting plan. Built Tent per section 5.3.2 of the ACC preservation requirements. Compressore was set on 10/7/2020; Covered with temp tarp on 10/8/2020; semi permanent scaffold and cover completed on 10/10/2020.	12/03/20	12/07/20	Contractor	Construction

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<b>R No.</b> 001		Recommended Corre	tive i inno incontration / C	Supplier						Date	Disposition			Proposed Date Submitt		NOWB	
		Action Action	tive Type (Internal / S Client) Kiewit		Vendor Discipline	Construction Area Piece of Equipment Affec	ted Disposition	Disposition & Required Actions EOR approval for out of tolerance per specification	Recommended Preventative Actions	Issued Signature Date	Client	-	Approved By Client	Closure Date Closure	Planned Action	ACTIVE NGWP Activity	NGWP ITEM DETAIL
	Damage to upper concrete driven pile	'44" out of tolerance per specification at 6"       NA         PP-70 during pile driving activities, damage is just above the Emeca splice       A single additional pile m         driven adjacent to this pil       The pile(new) may be dri	e				0567515	EOR to determine action to be taken per specification 102761-B-STR		5/28/2019	6/26/2019	N/A N/A	6/26/2019		6/26/2019	CLOSED NO	
	Driven Pile DP-70 plate, resulting in exposed repar and a	break. break. break source as t side of the column, extending from the break on any side based on action of the break break.	may				Rework or Scrap	SPC-0006 section 4.5.4.1.12	EOR to notify Quality of resolution	6/6/2019 6/25/2019	8/13/2019	N/A N/A	8/13/2019		8/13/2019	CLOSED NO	
	Exceeding plumbness plumbness during driving but could not	of the pile started to walk to the west. Crew attempted to correct the out of correct enough to get back in tolerance. As the pile sits now it is 1 3/8" in 4' N/A uating to 2.86% or .86% out of tolerance.	Kiewit				Rework	Rejected piles shall be corrected as directed by the engineer of recorr	rd.	6/11/2019 6/25/2019					6/26/2019	CLOSED NO	
	GCAW Regeneration Gas Separator LDD-101 Seperator LDD-1011 Seperator LDD-1011	1 was found to have an incorrect coating applied in accordance w/ 102761-B- as specified as Sherwin-Williams Heat-Flex, Hi-Temp 1200 degree Fahrenheit d are Sherwin-Williams Macropoxy 646 (Interim.) and Acrolon 218 HS (Finish) 200 degree Fahrenheit system.	at the g Kiewit	OSSQ			Rework	Blast incorrect coating and recoat with approved coating system per specification 102761-B-MEC-SPC-0070	Being knowledgeable of specification and verify current drawings before proceeding with any installation and applications of materials.								
	original coating was specified as Sherw	an incorrect coating applied in accordance w/ 102761-B-STR-SPC-0003. The in-Williams Heat-Flex, Hi-Temp 1200 degree Fahrenheit system. The coatings filliams Macropoxy 646 (Intern.) and Acrolon 218 HS (Finish) 200 degree Fahrenheit system.								5/16/2019 6/13/2019	6/14/2019	N/A N/A	6/14/2019	6/15/2020 7/8/2020	7/8/2020     NCR will remain open until equipment is re-pain       NCR will remain open until equipment is re-paint       7/15 - PAUT COMPLETE/ COATING TO BE       COMLETED BY 7/31       7/25 - CHC need 10 day notification for start of pr       may start 7/31 finish week of 8/10       8/1 - CHC Coating SNF received from UOP and s       8/8/ CHC Coating SNF received from UOP and s	ed. aint, oating sent to	
	GCA Adsorber L-1000A		Kiewit	ossq	UOP		Rework	Blast incorrect coating and recoat with approved coating system per specification 102761-B-MEC-SPC-0070	Being knowledgeable of specification and verify current drawings before proceeding with any installation and applications of materials.	5/16/2019 6/13/2019	6/14/2019	N/A N/A	6/14/2019	6/15/2020 9/28/2020	NG. Coating to start Monday 8/24 and be completely Monday 8/31. 8/15 CHC No Further Update 8/22 CHC - Do to a Tropical Storm scheduled to impact Houston, Coating is being rescheduled to on 8/31 8/30 CHC Confirmed start date for coatings is 8/ 9/16 CHC Final Inspection Coating 9/19 CHC Final Inspector of Coating Accepted Requested Coating Reports from Inspector Ruber Salazar to close out the NCR 9/20/2020 been dssued to Close out NCR	o start 31 - n	
i	original coating was specified as Sherw	an incorrect coating applied in accordance w/ 102761-B-STR-SPC-0003. The In-Williams Heat-Flex, Hi-Temp 1200 degree Fahrenheit system. The coatings illiams Macropoxy 646 (Interm.) and Acrolon 218 HS (Finish) 200 degree Fahrenheit system.		OSSQ	UOP		Rework	Blast incorrect coating and recoat with approved coating system per specification 102761-B-MEC-SPC-0070	Being knowledgeable of specification and verify current drawings before proceeding with any installation and applications of materials.						NCR will remain open until equipment is re-paint 7/15 - PAUT COMPLETE/ COATING TO BE COMLETED BY 7/31 7/25 -CHC need 10 day notification for start of pr may start 7/31 finish week of 8/10 7/29 EMR start 8/12 finish 8/21 approx. 8/1 - CHC Coating to start 8/24/with a (14) day c cycle planned. Scheduled to complete 9/4 8/8 CHC Coating SNF received from UOP and s NG. Coating to start Monday 8/24 and be complet by Monday 8/31. 8/15 CHC No Further Update 8/22 CHC - Do to a Tropical Storm scheduled to impact Houston, Coating is being rescheduled to on 8/31 8/30 CHC Confirmed start date for coatings is 8/ 9/16 CHC Final Inspection Coating 9/16	aint, oating sent to sted	
															9/19 CHC Final Inspection of Coating Accepted Requested Coating Reports from Inspector Rube Salazar to close out the NCR	en	
	original coating was specified as Sherw	an incorrect coating applied in accordance w/ 102761-B-STR-SPC-0003. The in-Williams Heat-Flex, Hi-Temp 1200 degree Fahrenheit system. The coatings illiams Macropoxy 646 (Interm.) and Acrolon 218 HS (Finish) 200 degree Fahrenheit system.						Blast incorrect coating and recoat with approved coating system per	Being knowledgeable of specification and verify	5/16/2019 6/13/2019	6/14/2019	N/A N/A	6/14/2019	6/15/2020 9/28/2020	9/26 CHC Final Inspection Coating Reports ha 9/30/2020 been dssued to Close out NCR NCR will remain open until equipment is re-paint 7/15 - PAUT COMPLETE/ COATING TO BE COMLETED BY 7/31 7/25 -CHC need 10 day notification for start of pr may start 7/31 finish week of 8/10 7/29 EMR start 8/12 finish 8/21 approx 8/1 - CHC Coating to start 8/24/with a (14) day c cycle planned. Scheduled to complete 9/4 8/8 CHC Coating SNF received from UOP and s NG. Coating to start Monday 8/24 and be comple	CLOSED NO ed. aint, oating sent to	
7			Kiewit	OSSQ	UOP		Rework	specification 102761-B-MEC-SPC-0070	current drawings before proceeding with any installation and applications of materials.	5/16/2019 6/13/2019	6/14/2019	N/A N/A	6/14/2019	5/1/2020 9/28/2020	by Monday 8/31. 8/15 CHC No Further Update 8/22 CHC - Do to a Tropical Storm scheduled to impact Houston, Coating is being rescheduled to on 8/31 8/30 CHC Confirmed start date for coatings is 8/ 9/16 CHC Final Inspection Coating 9/16 9/19 CHC Final Inspection of Coating Accepted Requested Coating Reports from Inspector Rube Salazar to close out the NCR 9/20 CHC Final Inspection Coating Reports ha 9/30/2020 been dssued to Close out NCR	o start 31 - en	
3	Destine Filter I DO 4040 0000 The existent events are sife	to have an incorrect coating applied in accordance w/ 102761-B-STR-SPC- ed as Sherwin-Williams Heat-Flex, Hi-Temp 1000 degree Fahrenheit system. Sherwin-Williams Macropoxy 646 (Interm.) and Acrolon 218 HS (Finish) 200 degree Fahrenheit system. Re-coating shall be perfor as per 102761-B-MEC-S 0069 AND 0070 Rejected / Does not agre	ned to . Kiewit med 'C-	OSSQ	UOP	E Pretreatment Skid	Rework	Blast incorrect coating and recoat with approved coating system per specification 102761-B-MEC-SPC-0070	Being knowledgeable of specification and verify current drawings before proceeding with any installation and applications of materials.	5/22/2019 1/29/2020	1/29/2020		1/29/2020	5/15/2020 7/8/2020	7/8/2020 NCR will remain open until equipment is re-paint	ed CLOSED NO	
I	Particle Filter LDS - 1010 0003. The original coating was specified	to have an incorrect coating applied in accordance w/ 102761-B-STR-SPC- ad as Sherwin-Williams Heat-Flex, Hi-Temp 1000 degree Fahrenheit system. Sherwin-Williams Macropoxy 646 (Interm.) and Acrolon 218 HS (Finish) 200 degree Fahrenheit system. Becoating shall be perfor as per 102761-B-MEC-S 0069 AND 0070	l. Kiewit med	ossq	UOP	E Pretreatment Skid	Rework	Blast incorrect coating and recoat with approved coating system per specification 102761-B-MEC-SPC-0070	Being knowledgeable of specification and verify current drawings before proceeding with any installation and applications of materials.	5/22/2019 1/29/2020	1/29/2020		1/29/2020	5/15/2020 7/8/2020	7/8/2020 NCR will remain open until equipment is re-paint	ed CLOSED NO	
	Pressure Testing to NFPA 59A 2001 Edition 7 Failure to meet pressure testi	ng requirements as outlined in specification NFPA 59A 2001 Edition See Disposition & Requirements as outlined in specification NFPA 59A 2001 Edition	ired Kiewit				Rework	Testing plan shall be developed to provide re-testing at Barnhart Hak facility including pressure testing procedure to require 1.25 X MAWP, equipment mobilization manpower and safety plan and PPE to be use See attached letter and instructions.	3						NCR will remain open until re-testing is complete	ed	
	APCI Care and Products and Chemicals, INC. was no produce verifiable documentation that w of January of 2018 through the date of	enance and preservation for the Companders 1CS-V200 as required by Air t followed and properly documented. Request have been previously made to ould support proper maintenance and preservation activities during the period this NCR. Specific requirements in accordance with FPLP-APCI Compander y Preservation Checklist Installation through start-up CMD-0177d Ref. CMD-	ired Kiewit	OSSQ	APCI	B Cold Box? Compander Skid	Rework	Consultation with equipment manufacturer and owner to determine inspection steps that would identify any potential equipment damage. 1. New preservation procedure is to be submitted for both off-site and site storage encompassing requirements through commissioning. 2. Quarterly preservation inspections of all identified equipment must	d on- Follow Written procedures	6/18/2019 5/21/2020 6/19/2019	6/18/2019 2/7/2020				5/29/2020 and documentation has been received and revie NCR will remain open until we have seen that th 7/1/2020 "New" preservation procedure has been implement and recorded.	e CLOSED NO	
	APCI Care and Preservation Preservation Definito Definito Definition Definition Definition Definition Definiti	eservation for the K-131 Nitrogen Recycle Compressors as required by Air followed and properly documented. Request have been previously made to ould support proper maintenance and preservation activities during the period huary of 2018 through the date of this NCR.	<sup>ired</sup> Kiewit	OSSQ	APCI	C N2 Compressor Skid	Rework	2. Addition presorvation inspections of an identified equipment must performed and report submitted to Kiewit and National Grid.     Consultation with equipment manufacturer and owner to determine inspection steps that would identify any potential equipment damage.     1. New preservation procedure is to be submitted for both off-site and site storage encompassing requirements through commissioning.     2.Atlas Copco needs to provide Technician to site to evaluate compre condition and compliance to proper preservation procedures.     3. Quarterly preservation inspections of all identified equipment must	d on- essor Follow Written procedures	6/19/2019	2/7/2020		2/12/2020	6/24/2020	NCR will remain open until we have seen that th 6/24/2020 "New" preservation procedure has been impleme and recorded.		
	APCI Care and required by Air Products and Chemi	ervation for Air Cooled Heat Exchangers E-2131, E-2141, E-2151, & E-2135 cals INC. was not followed and properly documented. Request have been E137	1CS- Kiewit	OSSQ	APCI	B Compander Air Cooler	Rework	performed and report submitted to Kiewit and National Grid. Consultation with equipment manufacturer and owner to determine inspection steps that would identify any potential equipment damage. 1. New preservation procedure is to be submitted for both off-site and		6/19/2019	2/7/2020		2/12/2020	5/15/2020 6/24/2020	NCR will remain open until we have seen that th 7/1/2020 "New" preservation procedure has been impleme		
	Voids in two concrete As Kiewit was cutting off piles to elevation	e documentation that would support proper maintenance and preservation e period of January of 2018 through the date of this NCR				F 1st/2nd/3rd Stage Air Coole	Repair	2. Quarterly preservation inspections of all identified equipment must performed and report submitted to Kiewit and National Grid. Repair to Standard - Recommend using Sikadur 42, Grout-pak Pt, per	Kiewit's Concrete Engineer is communicating to Oldcastle (Supplier) to remedy the cause and ensure					0/21/2020	and recorded.	CLOSED NO	
	driven piles         two separate piles with           Stabilization wall area A         Pile initially inspected and there were	numbers mentioned in the Reference Documentation above. Actions no cracks. We started driving the top piece and noticed the crack. The crack See Disposition & Requ					Scrap	manufactures recommendations to fill voids.  Drive another pile within 28" (center to center) in any direction of the pattern to center.							9/11/2019	CLOSED NO	
_	east went down about 20' and the corner of t Driven Pile Location Group 1 Stabilization Wall 14" Pre-Cast Pile were cut off short by	2 inches to 3 inches out of Tolerance. Specification Cut-off tolerance shall be	Kiewit				Use-As-Is	Propose when performing the back filling and installing the Tensar wa that we do one 12 inch lift, one 9 inch lift and one 6 inch lift this would	I o prevent from recurrence Control Point (3rd party		7/8/2019	N/A N/A	7/8/2019		7/8/2019	CLOSED NO	
_	West Side within 1 inch of ti	are required elevation shown in the contract documents.	Kiewit	Engineering			Use-As-Is	bring us back to design elevation. Request EOR evaluation and / or approval. Speak with concrete supp about air content concerns.	surveyor) are shooting in bench marks then by using a laser level laying out the cut lines.	7/10/2019 9/30/2019 3/19/2020		N/A N/A	7/15/2019 7/8/2020	6/22/2020	9/11/2019 KOE will have EOR sign off on disposition week 3/16/2020. Expect to use as is and close NCR at 7/8/2020 same time. KOE will have EOR sign off on disposition week 3/16/2020. Expect to use as is and close NCR at	CLOSED NO	
	Duct Bank Failed Air Content Air Content was observed as being	4.0% per the required 4.5%-7.5%. Resulting in failure per the mix design. N/A	Kiewit	Engineering			Use-As-Is	Request EOR evaluation and / or approval. Speak with concrete supp about air content concerns.	lier If air test fails initially, take new sample and re- perform air content test. If test fails for second time, truck will be rejected.						3/16/2020. Expect to use as is and close NCR at same time. CLIENT DIDN'T AGREE ON DISPOSITION/ KIE DOESN'T AGREE WITH THE REJECTION OF DISPOSITION - WORK WITH RICHIE FOR REWRITE. CAMERON TO GET DENNIS TO GI FEEDBACK 7/17 7/22 EMR NCR disposition was rewritten - DO W NEED to update signature???? 7/29 EMR we need to send to NG for disposition	WIT ET /E	
	UOP/GCAW Volumetric Examination Attendees included, Robert Poche, Ale during this review that the volumetric ex mandatory essential variables as per A	document and NDE review was performed at GCAW shop in Humble, TX. x Devine, Robert Johnson, Gene Johnson, and Al Noriega. It was discovered amination records and radiographic film were found to be non-compliant to the SME Sec. VIII and ASME Sec. V requirements including but not limited to, film identification, etc. Reader sheets / Reports were found to not meet minimum requirements as per ASME Sec. V	ired Kiewit	OSSQ	UOP	E ?	Rework to Acceptable Standard	<ul> <li>Volumetric examination to be performed in conformance with code an contractual requirements</li> <li>1. NDE must be re-performed in compliance to the contract specificati</li> <li>2. NDE procedures and operator qualifications must be submitted for review.</li> <li>3. This rework will take place after blasting and before recoating of vessels. Kiewit and National Grid will be in attendance for first operational contractions of the contract operation.</li> </ul>	ion. Proper NDE review must be performed by supplier to assure conformance of sub-vendor to code and		3/20/2020		7/29/2020	6/22/2020		CLOSED NO	
۲1	Rejected Fill	m the PJ Keating quarry, it was discovered after dumping the load the 1 1/2" See Disposition & Requ	ired Kiewit				Scrap	Kiewit to take another test sample from the stock pile at PJ Keating as well as witness an in-process sieve analysis in conjunction with Natio Grid's Special Inspector. If material is deemed unsuitable for use the	not previously tested and approved from PJ Keating's	9/30/2019 7/22/2020 s	7/22/2020	NGWP 11/21/2019	7/30/2020	7/29/2020	8/15 CHC - Awaiting Response from National Gr 9/9/2020 8/30 CHC Awaiting response from National Gr		
	16" Pile Cutoff Craft proceeded cutting 16" concrete	e driven piles 5871-D-DP-25 & 5871-D-DP-26 without confirming pile cutoff	Kiewit				Use-As-Is	All pile cutoffs halted until survey marks pile cutoff elevations in front pile cutoffs halted until survey marks pile cutoff elevations in front pile cutoff crew and per RFI-000075, attached.	Ale approved before use. Kiewit will be conducting random visits at PJ Keating's Quarry. Action to prevent recurrence: Have survey crew mark each individual pile then tie with green flagging	10/9/2019 1/13/2020	11/23/2019		1/13/2020		1/13/2020	CLOSED NO	
2	Pile Tension Connector Upon cutting off of the 16" driven concr	esulting in two piles approximately 18" below actual elevation. ete piles it was found that the tension connector tubes were not in the correct 761-B-00-0000-STR-SF-6021 Rev.3 Gen. Notes 8. has a tolerance of +1/8" N/A	Kiewit				Use-As-Is	pile cutting crew and per RFI-000075, attached.	around piling signifying pile cutoff elevations were marked before commencing cutting of pile. The lack of support templates being used during fabrication. Kiewit has advised the fabricator of the findings and advised them of the need for additional		11/23/2019		1/10/2020		1/10/2020 This NCR should be ready to close. Tommy H./J R. to Gasher revised engineering documents to facilitate closure of NCR and present to NG wee		
3	Duct Bank Underground During review of Duct Bank 5, Section	ons 1, 2, & 3 - the underground utility warning tape installed is, 3" wide and ecification 102761-B-CIV-SPC-0001; states in section 3.10, "Tape shall be six N/A	Kiewit	Engineering			Use-As-Is	Discontinue using the currently installed 3" wide utility warning tape a use the required 6" wide tape specified in the 102761-B-CIV-SPC-00	support. Kiewit will also be preforming a shop visit to ensure the fabricator has addressed the issue. Ensure all specifications are reviewed and cross referenced as necessary by all involved. Make sure		1/8/2020			5/8/2020 5/27/2020	3/16/2020. Waiting to receive updated Drawings 5/27/2020 Eng. 4/14/2020		
4	Delivery of Non- Conferming 1 1/2 Dance Material delivered on-site from P.J. Kea	(6) inches wide." ting was a new material (not existing) which was tested and failed to meet the er specification 102761-B-CIV-SPC-0001 section 3.1 Actions					Scrap	Non-conforming material was rejected and returned, Kiewit and Nation Grids Quality Manager conducted an off-site visit at P.J. Keating to fu assess the stockpile of the material.	installed. nal Deliveries will continue to be monitored and P.J.	10/22/2019 10/24/2019 1/14/2020	1/22/2020	1/22/2020	1/23/2020		1/23/2020	CLOSED NO	
		1. Re-testing will be perfo at AXH to 1.5 X MAWP. I															

PLP									No	on-Conformance	e Log									Wiewit
NCR No.	Title	Description	Recommended Corrective Action           1. New preservation procedure shall be submitted and approved.           Inspections will be conducted weekly and documented.	Type (Internal / Supplier / Client)	Action By	Vendor	Discipline	Construction Area	Piece of Equipment Affected	Disposition	Disposition & Required Actions	Recommended Preventative Actions	Date ISSued ENG Issued Date	Date Disposition Submitted to Client	Approved By Clo	Doposed Date Submitted to Client for Date Closure		Planned Action	ACTIVE NGWP Activity	NGWP ITEM DETAIL Kiewit Disposition Complete
0026	LDE 1021 A/B Gas Heaters	The Regen Gas Heater was preserved under a N2 purge with positive pressure of 12-15 psig at the end of fabrication The purge was physically monitored weekly . However there was no log or record kept of the monitoring. NCR assigned to Taylor Forge	Inspection documentation will be submitted monthly. <sup>n</sup> 2.100% Internal VT will be performed at time of re-work, borescope will be required where applicable. 3.ITP shall be submitted by UOP/Taylor Forge including VT hold point and final	űewit	DSSQ	UOP		E	Pretreatment Skid		The supplier will maintain a record of inspection starting September 2019 The heater will be internally inspected for condition and documented The inspection will be insured via the hold point from the ITP.									
0027	Temperature of Concrete	During concrete testing prior to pouring Duct Bank 5 - Section 4, Fenagh Inspector was asked to take the temperatur of the concrete and said, he did not have a thermometer with his testing equipment, Temperature is required per Fenagh's procedure and ACI 301. Infrared Gun was used to verify temperature externally at 58 deg. F. which is not acceptable per ACI 301/ASTM C1064.	Ask EOR to review and accept	ûewit I	Engineering						Fenagh testing agency was unprepared, no checks to verify equipment was on-site, and concrete trucks were not rejected when all testing was not completed.		11/1/2019 11/5/2019 3/19/2020		6/24/2020	6/24/2020	7/1/2020 NC	OE will have EOR sign off on disposition week of /16/2020. Expect to use as is and close NCR at	CLOSED NO	
0028		During the cutting operation of concrete piles, survey (A-Plus) reported pile 5953-L-DP-09 was cut-off approximately 6ft below elevation. Proposed Cut-off=18.75 Actual=13.17. Piles in that run of grade-beam had been being cut-off a approx.13ft as the location was below grade, cuts made on the other adjacent piles were preliminary cuts and not fina cuts.	at DP-09 and replace with	üewit						Scrap	Pile cut short had been marked by survey, verified cut-off location approximately 8ft in the air. Slurry from adjacent pile cutting may have obscured the pile cut off mark. After grouting, the centerbar generally extends from the ground surface t the soils at the pile tip. However, since approximately 25 to 30 feet of casing has been pulled, the casing does not extend to the bottom of the	Fabricate wooden templates to ensure center bar is	11/9/2019 1/10/2020	) 11/23/2019	1/21/2020 5/15	15/2020	3/9/2020		CLOSED NO	
0029	Centerbars Out Of Tolerance	After grouting operations were completed on micropiles 5850-C-MP-08 & 5850-C-MP-28 centerbars being placed ended up leaning to an out-of-tolerance location horizontally within the casing.	N/A Ki	űewit	Engineering					Use-As-Is	hole, but is held in place by skin friction in what is generally considered to be the unbonded zone. To prevent the casing from dropping back down the hole until the grout is set and can support it, a temporary pile cap is connected from the centerbar to the casing to hold the casing in place until initial set of the grout has occurred. For the piles identified, either due to accidental and undetected shifting the top of the centerbar during the connection of the temporary cap or after the cap has placed and the pile is no longer being monitored (due to loads imposed by the casing), the location of the center bar shifted.	/ In addition, we have developed a method of wiring the rod in the center using the holes in temporary casing that holds the casing. Either method is anticipated to eliminate this problem. We will also measure the annular distance between the bar and the casing.		0 3/20/2020	7/22/2020 5/15	15/2020	pro 7/2	OE currently reviewing issue and will provide roposed disposition no later than 3/26/2020. /22 EMR sent to NG for disposition review /29 EMR Quality needs to sign and close 7/29	CLOSED NO	
0030	Area D Driven Piles Out of Tolerance	During driving of concrete piles an obstruction was encountered and forced two piles (5900-D-DP-01 & 5900-D-DP- 06) out of tolerance and one (5900-D-DP-01) of the two piles out of plumb.	The two (2) out-of-tolerance piles 5900-D-DP-01 and 5900- D-DP-06 fo NOT have to be rejected/scrapped and shall be used as installed. The drawing "PR-LNG-Diversion Trench FDN Loc Plan & Secs" dwg No. 102761-B-00-0000-STR- SF-5906 will be modified accordingly to accomidate this non-conformance.	űewit	Engineering						Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 2/13/202	) 2/18/2020	2/27/2020		3/9/2020		CLOSED NO	
0031	Area D Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced seventeen (17) piles (5871-D-DP-04, 587 D-DP-09, 5871-D-DP-14, 5871-D-DP-18, 5871-D-DP-21, 5871-D-DP-24, 5871-D-DP-26, 5871-D-DP-27, 5871-D-DP 28, 5871-D-DP-32, 5871-D-DP-34, 5871-D-DP-35, 5871-D-DP-36, 5871-D-DP-41, 5871-D-DP-43, 5871-D-DP-44, 5871-D-DP-45 ) out of tolerance and two (2) (5871-D-DP-03 & 5871-D-DP-08) piles out of plumb.	5871-D-DP-35, 5671-D-DP-36,	űewit	Engineering						Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.						OE will have EOR sign off on disposition week of		
0032	Area F Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced seven (7) piles (5620-F-DP-05; 5620-F-D 12; 5620-F-DP-21; 5620-F-DP-24; 5620-F-DP-27; 5620-F-DP-28; & 5620-F-DP-31) out of tolerance.	vertical capcities of the piles. The six (6) 95620-F-DP-05; 5620-F-DP-12; 5620-F-DP-21; 5620-F-DP-24; 5620-F-DP-27; P5620-F-DP-28;) do NOT have to be rejected/srapped and sall be used as installed. Pile 5620- F-DP-31 has been abandoned	liewit	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020	3/23/2020	3/27/2020		3/1 3/27/2020 sai	/16/2020. Expect to use as is and close NCR at	CLOSED NO	
0033	Area F Driven Piles Not Meeting Driving Criteria per 25ft Embedment.	During driving of concrete piles six (6) piles (5620-F-DP-17; 5620-F-DP-24; 5620-F-DP-25; 5620-F-DP-26; 5620-F- DP-28; & 5620-F-DP-29) did not meet the blow count (driving criteria) per 25ft embedment.	as per RFI 79.	űewit						Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 3/18/2020 1/8/2020 1/21/2020		6/16/2020 4/17 1/21/2020	7/2020 4/14/2020		ame time. Submitted to NG 3/19/2020	CLOSED NO	
0034		During driving of concrete piles obstructions were encountered and forced one (1) pile (5640-F-DP-03) out of tolerance.	The out-of-tolerance pile 5640- F-DP-03 does NOT have to be scrapped/rejected and shall be used as installed. The drawing "Compressor Lube Oil Cooler Piling Location Plan" dwg No. 102761-00-0000-STR-5640 rev1 updated 09-25-19 represents the latest piling location plan.	űewit I	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 3/23/303	0 3/19/2020	3/27/2020		3/1	OE will have EOR sign off on disposition week of /16/2020. Expect to use as is and close NCR at ame time. Submitted to NG 3/19/2020	CLOSED NO	
0035	Area G Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced five (5) piles (5560-G-DP-01; 5560-G-DP- 03; 5560-G-DP-04B; 5560-G-DP-05B; & 5560-G-DP-09;) out of tolerance.	The five (5) out of tolerance piles 5560-G-DP-01; 5560-G- DP-03; 5560-G-DP-048; 5560- G-DP-05B; & 5560-G-DP-09 do NOT have to be - rejected/scrapped and shall be used as installed. The Drawing "Hot Oil System Piping Location Plan" dwg 102761-B- 00-0000-STR-SF-5560 rev 2 dated 02-14-20 represents the lastest piling location plan. The one (1) out-of-tolerance	(iewit	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 3/18/2020	0 3/19/2020	6/16/2020 4/17	17/2020 4/14/2020	3/1	COE will have EOR sign off on disposition week of /16/2020. Expect to use as is and close NCR at ame time. Submitted to NG 3/19/2020	CLOSED NO	
0036	Area I Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced one (1) pile (5980-I-DP-09;) out of tolerance.	pile 5980-1-DP-09 does NOT have to be rejected/scrapped and shall be used as installed. The drawing "N2 Storafe aSUPT Sleepers Piling Location Plan" dwg No. 102761-B-00-0000-STR-5980 ki rev1 and "N2 Storage SUPT Sleepers Fdn Plan & Sects" dwg No. 102761-B-00-0000- STR-SF-5985 rev1 dated 1-21- 20 have been modified accordinly to accomidate the non-conformance.	űewit	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 3/23/2021	3/20/2020	6/16/2020 4/42	17/2020 4/14/2020	3/1	OE will have EOR sign off on disposition week of /16/2020. Expect to use as is and close NCR at		
0037	Area L Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced two (2) piles (5952-L-DP-03 & 5952-L-DP 09) out of tolerance.	The two (2) out-of-tolerance piles 5952-L-DP-03 & 5952-L- DP-07 do NOT have to be rejected/scrapped and shall be used as installed. The drawing "UG SUPT Foundation Location Plan & Sects" dwg No. 102761-B-00-0000-STR- SF-5956 will be modified accordingly to accomidate this non-conformance.	liewit I	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 2/13/2020		2/27/2020	1/2020 4/14/2020	3/10/2020 Sai	ane une.		
0038	Area L driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced two (2) piles (5953-L-DP-19 & 5953-L-DP 21) out of tolerance.	Based on the "Reference Documentation" in the title block above, the out-of- tolerance piles should be 5953- L-DP 19 and 5953-L-DP-21. The two (2) out of tolerance piles 5953-L-DP 19 and 5953- L-DP-21 do NOT have to be rejected/scrapped and shall be used as installed. The drawing "UG SUPT Foundation Location Plan, Details & Sects" Dwg No.'s 102761-B-00-0000- STR-SF-5957 and ST-5958 will be modified accordinly to accomidate this non-	űewit	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.					R.	his NCR should be ready to close. Tommy H./Jason t. to Gasher revised engineering documents to		
0039	Area L Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced one (1) pile (5951-L-DP-14) out of tolerance.	The one (1) out-of-tolerance pile 5951-L-DP-14 does NOT have to be rejected/scrapped and shall be used as installed. The drawings "UG SUPT FDN Piling Location Plan, Det, Sect" dwg No. 102761-B-00-0000- STR-5951 rev2 dated 1-17-20, Ki "UG SUPT Fdn Location Plan, Det's & Sects" dwg No. 102761- B-00-0000-STR-SF-5955 rev2 dated 1-16-20 have been modified acordingly to	űewit I	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 2/13/2020	0 2/18/2020	2/27/2020 4/17	7/2020 4/14/2020		acilitate closure of NCR and present to NG week of /16/2020.	CLOSED NO	
0040	Area M Driven Piles Out of Tolerance	During driving of concrete piles obstructions were encountered and forced two (2) piles (5870-M-DP-03 & 5870-M-DF 09) out of tolerance.	accommodate this non- conformance. The two (2) out-of-tolerance piles 5870-M-DP-03 and 5870- M-DP-09 do NOT have to be rejected/scrapped and shall be used as installed. In this case ONLY, the out-of-tolerance ONLY, the out-of-tolerance P- installation of the piles did not affect the edge distance, center-to-center spacing between piles, and did not affect the capacity, thereby no changes are required to the	űewit I	Engineering					Reject/Scrap OR Use-As-Is	Disposition and Action to be taken per engineering's recommendation and path forward.	Piles hit an obstruction.	1/8/2020 3/23/2020	) 3/20/2020	6/8/2020 4/17	17/2020 4/14/2020	3/1	OE will have EOR sign off on disposition week of /16/2020. Expect to use as is and close NCR at ame time.	CLOSED NO	
0041	Pile Tension Connector Sleeves	Upon cutting off of the 16" driven concrete piles it was found that the tension connector tubes were not in the correct location embedded in the pile, per Dwg. 102761-B-00-0000-STR-SF-6021 Rev.3 Gen. Notes 8. has a tolerance of +1/8"		(iewit						Use-As-Is	Engineering to provide recommendation and path forward. Started drilling micropile 5870-M-MP-03 on 12/31/19. The piles in Area M	The lack of support templates being used during fabrication. Kiewit has advised the fabricator of the findings and advised them of the need for additional support. Kiewit will also be preforming a shop visit to ensure the fabricator has addressed the issue.			2/20/2020	15/2020 5/27/2020	R. fac 3/1	his NCR should be ready to close. Tommy H./Jason & to Gasher revised engineering documents to acilitate closure of NCR and present to NG week of /16/2020.Waiting to receive updated Drawings from ing. 4/14/2020	CLOSED NO	
0042	Additional Dept Drilled on 5870-M-MP-03	5870-M-MP-03 was drilled an additional 5 feet in depth total (it achieved a tip elevation of approximately -78.8 feet and the minimum required elevation was -70 feet). As scheduled, 25 feet of casing was pulled. However, with the extra five feet of drilling, we have a total of 70.7 feet of casing on the pile, which is 6.4 feet more than the casing length given for the pile on Sheet 102761-B-00-0000-STR-SF-5872. The tolerance for the casing length is plus or minus 3 feet. Due to length of the subsequent casing sections, pulling an additional 5 feet of casing out (30 total) was not a readily available option for this pile.	N/A Ki	üewit	Engineering					Use-As-Is	were all drilled with 100.7' of casing, some with different sequencing in order to utilize all the casing available on site. The previous two holes had been drilled with the same sequencing and 5870-M-MP-03 was supposed to be drilled with the same sequencing. In order to use the casing already available at the drilling location, a 10' casing was used where a 5' casing had been used on the previous two shafts. The shaft was drilled 55' when operations ceased for the holiday and resumed two days later on 1/2/20. When operations resumed, the sequence of casing was continued as if there was a 5' casing in the spot where there was actually a 10' casing, therefore resulting in an additional 5' being drilled.	Following a long weekend/holiday, tool-box talks wil be conducted with craft during their morning stretch and flex activities prior to starting work.		2/7/2020	2/12/2020		3/9/2020			

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## Non-Conformance Log

1	Title	Description	1		1	1				Γ		ENC Date		nnosad Data Submitted		
R No.	The		Recommended Corrective Action	Type (Internal / Supplier / Client)	Action By	Vendor	Discipline	Construction Area	Piece of Equipment Affecte	d Disposition	Disposition & Required Actions Recommended Preventative Actions Date Issued	ENG Signature Date Date Client	Rejected Elevated Approved By	oposed Date Submitted losure to Client for Date Closed Planned Action Date Closure	ACTIVE NGWP Activity	, NGWP ITEM DETAIL
0043	Recommendation vs Resolution	After drilling Micropile 5870-M-MP-07 to full depth (90'), the operation was shut down due to a safety stand down following a safety incident (12/12/19). Operation was anticipated to resume 12/18/19. Construction put in an RFI asking for the path forward and clarification of same day grout requirement. Recommendation per RFI was not followed per the Engineers approved resolution.	N/A	Kiewit	Engineering					Use-As-Is	Based on the daily report for Dec.17th and subsequent conversations with on-site personnel, micropile 5870-M-MP-07 was drilled 5 additional feet after being left at depth for 6 days. Approximately 6.5 feet of sand was encountered at the bottom of the casing after drilling, which is in line with other piles installed in this area. The total grout volume for the pile was 127% of the theoretical volume, which is in line with where we would expect it to be. The installation of pile 5870-M-MP-07 is acceptable.					
044	Damage to Duct Bank #5	During the demolition of an existing slab for the propane foundation Duct Bank #5 was impacted with the excavator mounted hammer. Resulting in the concrete from the Duct Bank being damaged and a 4" conduit being cracked.	See Disposition & Required Actions	Kiewit	Construction					Repair to standard	Kiewit will demo the concrete around the conduit to expose the conduit which was damaged area of Duct Bank #5 will be replaced. Then the concrete for the damaged area of Duct Bank #5 will be re-poured.       Cause: Area was not laying out Duct Bank #5 from the adge of the duct bank. Prevention:#1         New Ground Disturbance permit for all operations that disturb the ground, #2 Existing and installed utilities will be clearly marked before digging, #3	0 1/31/2020 1/31/2020	2/3/2020	NG requesting a RCA to be performed for the safety	CLOSED NO	
045	5871-D-MP-02 out of 3" tolerance.	Micropile 5871-D-MP-02 was found during as-builts to be drilled out of tolerance	N/A	Kiewit	Construction					Use-As-Is	damage occurs         3/20/202           Crew will use 2 spotters when relocating the rig to ensure pin locations are not impacted. Survey crew will verify pin locations if any ground movement or other impacts are identified.         moving to 2 spotters to watch rig so we don't push pins and final verification by Superintendent of drill box location before drilling.         4/14/202	0 6/17/2020 3/24/2020 0 5/11/2020 5/11/2020	6/26/2020 5/28/2020 5/	6/26/2020 6/26/2020 factor 15/2020 5/11/2020 6/17/2020	CLOSED NO	
046	5570-B-MP-35 and 5570- B-MP-37 out of tolerance 3"	Micropile 5570-B-MP-35 and 5570-B-MP-37 was found during as-builts to be drilled out of tolerance	N/A RFI-000153 was not	Kiewit	Construction					Use-As-Is	Crew will use 2 spotters when relocating the rig to ensure pin locations are not impacted. Survey crew will verify pin locations if any ground movement or other impacts are identified.	0 5/11/2020 5/11/2020	5/28/2020 5/	15/2020 5/11/2020 6/17/2020	CLOSED NO	
047	Duct Bank Foundation #2 Backfill	Duct bank foundation #2 (Duct bank #3) was backfilled with structural fill at 87% compressive strength. The guide for form removal , curing and loading of concrete specifies a compressive strength of 100% before it can be backfill with structural fill material.	thoroughly reviewed prior to r directing backfill. RFI-000153 was approved specifying the use of CLSM to backfill UG foundations at 70%, but did not mention structural backfill.	Kiewit	Construction					Use-As-Is	Construction to submit a revision to RFI-000153 clarifying that both CLSM and structural backfill may be used to backfill to top of concrete at 70% concrete compressive strength. Addit of field work packages to ensure all applicable RFIs are included. Field staff and foremen to review all RFIs applicable to their scope of work.	6/5/2020 6/5/2020	6/5/2020	6/5/2020 6/24/2020	CLOSED NO	
048	Unconsolidated Concrete on PDC Pedistalls	After removal of the forms for the PDC column pedestals it was found that there was areas of concrete that wasn't completely consolidated	Engineer develop a repair procedure, Which includes the removal of unconsolidated material and place back with an approved Grout/ Concrete Product	Kiewit	Construction					Repair to standard	Lack of training on use of external vibrators, Initial plan did not address weight of Embeds, Material receiving process, Clash between anchor bolts and sitting of the PDC not discovered till 4 weeks prior to pour & Order embeds prior to final design.	7/1/2020 7/1/2020	7/8/2020	7/15 DENNIS REJECT TILL SUPLEMENTAL STEEL IS ERECTED. STEEL ERECTION START 8/3 COMPLETE 8/7 7/22 attach RFI to NCR resubmit for closure-Camero 7/8/2020 7/29 need to send out.		
049		Embed Plates called out in RFI-000161 were fabricated by a welder qualified only to 3/4" thickness, and actual welds were 1" thickness.		Kiewit	Construction					Use-As-Is	Review for acceptance and use-as-is with after-the fact welder	0 7/1/2020 7/1/2020	7/8/2020	7/22 EMR Supplemental Steel Erection Must Be 10/21/2020 complete to close NCR.	CLOSED NO	
0050	Misplacement of On-Sote Reusable Fill Materials	In the area of the nitrogen access road, reusable on-site soils were placed and not structural fill. There is concern tha on-site reusable soils were placed beneath the roadway.	Limits of the roadway are to be layed out and verified by survey so that the areas needing structural fill can be clearly marked. Only structural fill material will be placed underneath this roadway section which is in line with the Civil Earthwork Specification. Sec 4.12 of the earthwork spec. "Only Structural Fill shall be placed under concrete mat foundations, pile caps, spread footings, vaults, other shallow foundations, and paved areas."	l e Kiewit	Construction					Repair to standard	The limits of the road where not marked out prior to placement of fill materials. Due to the mass quantity of fill needed to bring the area up to finish grade, both underneath the roadway section and the surrounding areas, a bulldozer was used to push material and place an approx. 1 ft lift of on-site reusable fill. Since the roadway limits were not clearly marked, there is concern that on-site reusable fill materials where incorrectly placed beneath the roadway.	0 6/30/2020	7/1/2020	7/9/2020 7/9/2020	CLOSED NO	
051	Cold Box Heat Exchanger Non-Compliance	Cold Box Heat Exchanger. See actual NCR for detailed description.	See Disposition & Required Actions	Kiewit	OSSQ	APCI				Rework	Re-fabricate			8/30 CHC - No Further update 9/19 CHC APCI continues to work with Chart on the refabrication of the Heat Exchangers to be incorporated into the Cold Boxes. APCI to provide Kiewit a Witness Point Schedule by COB 9/25 9/26 CHC APCI has issued Witness Point Schedule	NO	
052	Aether Skid O-Sonic	Shipment of Material with Open NCR Aether Skid Q-Sonic Ultrasonic Flowmeter has pressure retaining components that originate from The People's	See Disposition & Required Actions	Kiewit	OSSQ	P/H				Rework	Structural Steel Rejected and sent off-site 7/20/202	0 7/8/2020 7/22/2020 0 7/22/2020	7/23/2020	1/7/2021         and first Supplier Notification Form for 10/7/2020.           7/22 EMR Send to NG for Disposition Review         7/29 EMR sent to NG for disposition 7/22           8/5/2020         8/5/2020         7/29 EMR sent to NG for disposition 7/22           8/19 EMR Issue USE AS IS with supplement         8/19 EMR Issue USE AS IS with supplement	CLOSED NO	
53 R2	Ultrasonic Flowmeter - Material country of origin	Republic of China (PRC). This violates Kiewit specification 102761-B-MEC-SPC-0007 (Pressure Containing Material Sourced from The People's Republic of China Specification). Chinese material is not permitted for hazardous systems per note 2 of appendix 2. The flowmeter system is for Feed gas and is therefore hazardous.	See Disposition & Required Actions	Kiewit	OSSQ	Aether				Remove and Replace	Remove and Replace Kiewit shall amend specification to remove note (2) of appendix 2 and allow PRC sourced materials on a case-by-case. Basis with engineering approval. 7/28/202	0 9/9/2020	8/21/2020	11/16/2020 1/7/2021 10/7 CHC Awaiting direction from National Grid	NO	
54 R4	<ul> <li>Missing Charpy &amp; Incorrect NDE %</li> </ul>	ACC performed Charpy Impact Testing on carbon steel welding procedure for the weld metal and heat affected zone for the Booster Compressor in accordance with the Kiewit Detailed Design Criteria, ASME B31.3, the Contract and the National Grid Weld Policy. ACC did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5 Content; Subsection 5.1 Scope; Paragraph d. Procedures; Subsection 2) Testing Subparagraph iCharpy V-Notch Toughness testing of the base metal and base metal heat affected zone in accordance with the requirements of ASME Section IX; Sub subparagraph 1. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone and shall meet the following	e );	Kiewit	ossa	ACC					Rework to Acceptable Standard					ACC is performing addition PQRs
055	APCI Cold Box Aluminum WPS in Doc pack used for shipping release	Cold Box Aluminum WPSs will not be included in Final Doc Pack due to vendor placing proprietary stamp on them.		Kiewit	OSSQ	APCI					Vendor will allow review @ fabrication facility of the Aluminum WPSs by Kiewit and NG. After acceptable review submit a COC in lieu of actual WPS in the final package.     Communicate all client requirements down to all vendors and sub prior to fabrication     8/12/202	0 8/19/2020		1/7/2021 8/5 - EMR drafting redacted review. Redacted version with Letter state ting review from Kiewit in final package. Client optior to attend if they can. Noble to set up WPS review wit 1/7/2021 Justin M.	NO	
56 R2	not completed per NGWP	Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. UOP did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to documen		Kiewit	OSSQ	UOP				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is 8/19/202	0 8/25/2020		12/9/2020	CLOSED YES	UOP Did not perform 3 point inspection on the OFRA skids
057	provide proper NDE on the Thermal Vaporizer	Chart Industries did not provide proper NDE on the Thermal Vaporizer APCI performed final visual weld inspection on all piping welds on the Compander Skid package and the N2	N/A	Kiewit	OSSQ	CHART				Use-As-Is	Chart to perform additional NDE to meet the required % as required by NGWP (NFPA 59A - 2001 8/19/202	0 8/25/2020		10/7 EMR-NDE to be completed at the suppliers facility. Shipping will be from that facility. 4 weeks to ship. 10/17 CHC Chart to submit NDE Procedure for approval before commencing with NDE at Suppliers	NO	
58 R1	not completed per NGWP	Compressor Skid package, in accordance with the Project specifications, ASME B31.3, the Contract, and the Nationa Grid Weld Policy. APCI did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract assuming to be Attachment 2 Weld Record and Inspections. The alternate form must meet the minimum record	t, is	Kiewit	ossa	APCI				Use-As-Is	Use As Is					APCI COMPANDER Did not perform 3
0059	Cryo and Non Cryo	Puffer Swiven has supplied control valves that have components originating from People's Republic of China(PRC). This violates Kiewit's specification 102761-B-MEC-SPC-0007(Pressure Containing Material Sourced from the People's Republic of China Specification). Chinese material is not permitted for hazardous system per note 2 of appendix 2. Below are valve tags with PRC content	N/A	Kiewit	OSSQ	Various				Use-As-Is	Use As Is Based on Engineering approval     8/19/202       Kiewit shall amend specification to remove note (2) of appendix 2 and allow PRC sourced materials on a case-by-case. Basis with engineering approval.     9/8/2020	9/8/2020		12/9/2020 11/7 CHC No Update 10/7 CHC No Update 10/12 CHC No Update 10/17 CHC No Update 10/24 CHC No update 10/31 CHC No update	CLOSED YES NO	point inspection
0060		Puffer Swiven has supplied On/Off valves that have components originating from People's Republic of China(PRC). This violates Kiewit's specification 102761-B-MEC-SPC-0007(Pressure Containing Material Sourced from the People's Republic of China Specification). Chinese material is not permitted for hazardous system per note 2 of appendix 2. Sunbelt Supply has supplied Non-Cryo valves that have components originating from People's Republic of China(PRC). This violates Kiewit's specification 102761-B-MEC-SPC-0007(Pressure Containing Material Sourced	N/A	Kiewit	OSSQ	Various				Use-As-Is	Use As Is Based on Engineering approval Viewit shall amend specification to remove note (2) of appendix 2 and allow PRC sourced materials on a case-by-case. Basis with engineering approval. 9/8/2020	9/8/2020		10/12 CHC No Update 10/17 CHC No Update 10/24 CHC No update 10/31 CHC No update	OPEN NO	
0061		from the People's Republic of China Specification). Chinese material is not permitted for hazardous system per note 2 of appendix 2.	2 N/A	Kiewit	OSSQ	Various				Use-As-Is	Use As Is Based on Engineering approval Viewit shall amend specification to remove note (2) of appendix 2 and allow PRC sourced materials on a case-by-case. Basis with engineering approval.			10/7 CHC No update 10/12 CHC No Update 10/17 CHC No Update 10/24 CHC No update 10/31 CHC No update	NO	
062		Description: Pieces RXB030 and RXB080 were examined for weld discontinuities. On piece #RXB030, out of 16 welds inspected, 10 were found to be undersized or not of sufficient length/spacing (in the case of stitch welds) as per weld symbols. On piece# RXB080, out of 20 welds inspected, 10 were found to be undersized. Pieces taken as representative of entire shipment of steel	Nucor confirmed calculations	Kiewit	OSSQ	Patterson Horth				Use-As-Is	Use As Is Based on Engineering approval	9/8/2020		2/2/2021 11/7 CHC No Update 9/26 CHC - No update 10/7 CHC Need update from Kiewit Project Team 10/12 CHC Need update from Kiewit Project Team 10/17 CHC Need update from Kiewit Project Team	CLOSED NO	
63-R1	3 Point Inspection	ACC performed final visual weld inspection on all piping welds on the Booster Compressor in accordance with the Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. ACC did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and		Kiewit	OSSQ	ACC				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is	10/13/2020 11/6/2020		11/6/2020 11/12/2020 10/24 CHC Need update from Kiewit Project Team	1 CLOSED	
64-R1	Skid 3 - Point Inspection	greater). Use this report form or similar log/form to document the weld inspections. The alternate form must meet the minimum record requirements of API 1104 section 9. APCI performed final visual weld inspection on all piping welds on the N2 Compressor in accordance with the Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. APCI did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report		Kiewit	0550	APCI				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3	0 9/10/2020 9/12/2020		12/9/2020	CLOSED YES	ACC Did not perform 3 point inspection
	Aether Feed Gas Metering Skid - 3 Point	Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to document the weld inspections. The alternate form must meet the minimum record requirements of API 1104 section 9. Aether performed final visual weld inspection on all piping welds on the Feed Gas Metering Skid in accordance with the Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. Aether did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3									and if acceptable Use As Is 9/10/202	0 9/11/2020 9/12/2020		12/9/2020	CLOSED YES	APCI N2 Did not perform 3 point inspection
65-R1	APCI ColdBox - 3 Point	Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to document the weld inspections. The alternate form must meet the minimum record requirements of API 1104 section 9. APCI performed final visual weld inspection on all piping welds on the ColdBox in accordance with the Project		Kiewit	ossq	Aether				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is 9/10/202	0 9/11/2020 9/12/2020		10/24 CHC Aether has verified in writing that a Fit-up Root Pass and Final Inspection has been performed This NCR can be Closed. 10/31 CHC Please issue NCR for closure. 12/9/2020 11/7 CHC Please issue NCR for closure.		Aether DID perform 3 point inspection and documented it on a COC
66-R1		specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. APCI did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification C. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to document the weld inspections. The alternate form must meet the minimum record requirements of API 1104 section 9.	N/A	Kiewit	OSSQ	APCI				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is 9/10/202	0 <u>9</u> /11/2020 <u>9</u> /12/2020		12/9/2020	CLOSED YES	APCI Did not perform 3 point inspection
67-R1	Point Inspection	APCI performed final visual weld inspection on all piping welds on the Crossover Box in accordance with the Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. APCI did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to document the weld inspections. The alternate form must meet the minimum record requirements of API 1104 section 9.		Kiewit	ossq	APCI				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is					
68-R1	3 Point Inspection	Chart performed final visual weld inspection on all piping welds on the Truck Loading Skid in accordance with the Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. Chart did not document weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to documen the weld inspections. The alternate form must meet the minimum record requirements of API 104 section 9.		Kiewit	OSSQ	Chart				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is     9/10/202	0 9/11/2020 9/12/2020		12/9/2020	CLOSED YES	APCI Did not perform 3 point inspection
069-R1	Chart Nitrogen Vaporization Package - 3 Point Inspection	Chart performed final visual weld inspection on all piping welds on the Nitrogen Vaporization Package in accordance with the Project specifications, ASME B31.3, the Contract, and the National Grid Weld Policy. Chart did not documen weld joint fit-up and weld root inspection on all welds as described in the National Grid Weld Policy Section 5.3 Welder Qualification c. Responsibilities 2) The Welding Inspector shall be responsible for completion of a Weld Record Inspection Report Attachment B (No actual Attachment B in the contract, assuming to be Attachment 2 Weld Record and Inspection Report Gas Transmission (125 PSIG and greater). Use this report form or similar log/form to	N/A	Kiewit	ossa	Chart				Use-As-Is	Verify Final Visual Inspection was performed in accordance with B31.3 and if acceptable Use As Is     9/10/202	0 9/11/2020 9/12/2020		12/9/2020	CLOSED YES	Chart Did not perform 3 point inspection
70-R1	Atlas Copco Comptec - Booster Compressor - Base Metal Charpy SS	document the weld inspections. The alternate form must meet the minimum record requirements of API 1104 section 9. Atlas Compco Comptec performed Charpy Impact Testing on stainless steel welding procedures for the weld metal and heat affected zone for the Booster Compressor in accordance with the Kiewit Detailed Design Criteria, ASME B31.3, the Contract and the National Grid Weld Policy. Atlas Copco did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5.5 In-Service Welder Procedure Specification;		Kiewit	OSSQ	ACC				Use-As-Is	9/10/202 Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.	0 9/11/2020 9/12/2020		12/9/2020 12/4/2020 1/7/2021	CLOSED YES	Chart Did not perform 3 point inspection
	APCI - N2 Compressor Skid - Base Metal Charpy SS	Paragraph c. Procedure Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone." APCI performed Charpy Impact Testing on stainless steel welding procedures for the weld metal and heat affected zone for the N2 Compressor Skid in accordance with the project specifications, ASME B31.3, the Contract and the National Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5.5 In-Service Welder Procedure Specification; Paragraph c. Procedure	N/A	Kiewit	OSSQ	APCI				Use-As-Is	9/10/202 Verify all Procedure Qualification Records contain Charpy impact testing	0 9/11/2020 9/12/2020		12/4/2020	CLOSED YES	ACC is running additional PQRs to comply with NGWP requirements
	APCI - Compander Skid - Base Metal Charpy SS	Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone." APCI performed Charpy Impact Testing on stainless steel welding procedures for the weld metal and heat affected zone for the Compander Skid in accordance with the project specifications, ASME B31.3, the Contract and the National Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the										0 9/11/2020 9/12/2020		1/7/2021	CLOSED YES	APCI - we don't have WPS for this piece of equipment
072-R1		National Grid Weld Policy. APCI tild hid periorin charpy impact testing for fired base metar as described in the National Grid Weld Policy Section 5.5 In-Service Welder Procedure Specification; Paragraph c. Procedure Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone."	N/A	Kiewit	ossq	APCI				Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.	0 9/11/2020 9/12/2020		12/4/2020		APCI did not perform ANY Charpy on the PQRs

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	Title Description	1	1		1		r			11		Date		1 1	<b>()</b>
CR No.	Recommended Corrective Action	e Type (Internal / Supplier / Client)	Action By	Vendor	Discipline	Construction Area	Piece of Equipment Affected	Disposition	Disposition & Required Actions	Recommended Preventative Actions	Date ENG Issued Date	e Disposition Submitted to Client	Rejected         Elevated         Date Disposition         Proposed         Date Submitted           Closure         Closure         to Client for         Date Closure           Client         Date         Closure         Closure	1 Planned Action ACTIVE	NGWP NGWP ITEM DETAIL
073-R1	APCI - Crossover Box - Base Metal Charpy SS APCI performed Charpy Impact Testing on stainless steel welding procedures for the weld metal and heat affected zone for the Crossover Box in accordance with the project specifications, ASME B31.3, the Contract and the National Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5.5 In-Service Welder Procedure Specification; Paragraph c. Procedure Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone."	Kiewit	OSSQ	APCI			l	Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202		12/4/2020		APCI did weld, fusion lines But it no /ES specifically stated and base materia
74-R1	APCI - Cold Box - Base Metal Charpy SS Metal Charpy SS Metal Charpy SS APCI performed Charpy Impact Testing on stainless steel welding procedures for the weld metal and heat affected zone for the ColdBox in accordance with the project specifications, ASME B31.3, the Contract and the National Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5.5 In-Service Welder Procedure Specification; Paragraph c. Procedure Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone."	Kiewit	OSSQ	APCI			t	Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.				1///2021		APCI did weld, fusion lines But it no
	UOP - Gas Pretreatment UOP performed Charpy Impact Testing on carbon steel welding procedure for the weld metal and heat affected zone Package - Base Metal Charpy CS Grid Weld Policy. UOP did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy. UOP did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5 Content; Subsection 5.1 Scope; Paragraph d. Procedures; Subsection 2) Testing; Subparagraph iCharpy V-Notch Toughness testing of the base metal and base metal heat affected zone in accordance with the requirements of ASME Section IX; Sub subparagraph 1. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, and heat affected zone and shall meet the following specified maximum test temperatures: a. 20 ft-lbs. at +20 degrees F. for buried transmission and distribution piping systems, b. 20 ft-lbs. at 0 degrees F for above ground transmission and distribution piping and c. 20 ft-lbs. at -20 degrees F for National Grid Gas Station piping systems"	Kiewit	OSSQ	UOP				Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202			OPEN 10/24 CHC - UOP/OFRA are in the process of Testing Weld Coupons in Italy for Charpy Impact Testing per the NGWP to include Base Metal. Expected completion date is 11/6. 10/31 CHCTesting continues, no further update 11/7 CHC Base Metal Charpy Impact Testing completed and Approved by Kiewit welding Engineering Group. Package sent to Elbert to	/ES specifically stated and base materia
	Chart - Final Line Skid - Base Metal Charpy SS Base Metal Charpy SS Weld Policy. Chart di not perform charpy impact testing for the base metal as described in the National Grid Weld Policy. Section 5.5 In-Service Welder Procedure Specification; Paragraph c. Procedure Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone."	Kiewit	OSSQ	Chart			t	Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202 9/10/2020 9/11/202			request Closure of this NCR on Thursday 11/5. CLOSED	Chart aluminum NOT required. VERIFY IF S IS USED IN THIS EQUIPMENT
077-R1	Chart - Truck Loading Skid - Base Metal Charpy SS Chart performed Charpy Impact Testing on stainless steel welding procedures for the weld metal and heat affected Skid - Base Metal Charpy SS National Grid Weld Policy. Chart did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy. Chart did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy. Section 5.5 In-Service Welder Procedure Specification; Paragraph c. Procedure Qualifications; Subsection 1) All welding procedure qualifications for Austenitic Stainless Steel piping"; Subparagraph i. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone."	Kiewit	OSSQ	Chart			l	Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202		12/4/2020	OPEN	Chart - did not have Charpy for the /ES base metal
078-R1	APCI - N2 Compressor Skid - NDE Requirements and read and to the performed on gas piping with a design pressure of 125 psig or greater shall be non-destructively examined by radiograph, ultrasonic, magnetic particle or liquid dye penetrant methods as specified in the National Grid Weld Policy "	Kiewit	OSSQ	APCI			l	Use-As-Is	Verify all NDE was performed in compliance with B31.3 and detailed engineering design and if acceptable Use As Is.		9/10/2020 9/11/202		1/15/2021	CLOSED	APCI - did not have Charpy for the
079-R1	APCI - Compander - NDE APCI did not perform additional NDE per Contract Scope of Work 3.10 Welding Requirements: 100% of welds performed on gas piping with a design pressure of 125 psig or greater shall be non-destructively examined by radiograph, ultrasonic, magnetic particle or liquid dye penetrant methods as specified in the National Grid Weld Policy "	Kiewit	OSSQ	APCI			l	Use-As-Is	Verify all NDE was performed in compliance with B31.3 and detailed engineering design and if acceptable Use As Is.		9/10/2020 9/11/202		1/15/2021		APCI Did not perform 100% NDE a
080-R1	UOP - Gas Pretreatment       UOP performed NDE on Gas Pretreatment Package Piping in accordance with the Kiewit Detailed Design Criteria,         Package - NDE       NFPA 59A and ASME B31.3. UOP did not perform additional NDE per Contract Scope of Work 3.10 Welding         Requirements       Requirements: 100% of welds performed on gas piping with a design pressure of 125 psig or greater shall be non-         destructively examined by radiograph, ultrasonic, magnetic particle or liquid dye penetrant methods as specified in the	Kiewit	OSSQ	UOP			l	Use-As-Is	Verify all NDE was performed in compliance with B31.3 and detailed engineering design and if acceptable Use As Is.					10/24 CHC Per UOP/OFRA an additional 54 Welds will need to under RT examination to meet the 30% per day criteria of NFPA 59A	UOP Did not perform NDE per the contract. NOT per NFPA 59A eith They did flat 30%. Get with Nick I
81-R1	National Grid Weld Policy."           Chart - Nitrogen           Vaporization Package-           NDE Requirements           Chart - Nitrogen           Chart - Nitrogen           Chart - Nitrogen           Vaporization Package-           NDE Requirements           Chart - Nitrogen           Chart - Nitrogen           Vaporization Package-           NDE Requirements           Chart - Nitrogen           Chart - Nitrogen           Vaporization Package-           NDE Requirements           Chart - Nitrogen           Chart - Nitrogen           Chart - Nitrogen           Vaporization Package-           NDE Requirements           Chart - Nitrogen           Chart - Nitrogen           Vaporization Package-           NDE Requirements           Chart - Nitrogen           Chart - Nichart - Nichart - Nitrogen           C	Kiewit	OSSQ	CHART			l	Use-As-Is	Verify all NDE was performed in compliance with B31.3 and detailed engineering design and if acceptable Use As Is.		9/10/2020 9/11/202			10/31 CHC No further update         OPEN           10/24 CHC Sent e-mail to Chart requesting NDE         procedures this past week. Chart to obtain from their           Sub-Supplier, no Procedures received by COB 10/23.         Sent another request on 10/24. This NCR is a           duplicate of NCR-057 above.         10/31 CHC This NCR is a duplicate of NCR-057	YES on letter giving direction to do 30
082	Partially Cut Shear Key Pocket Horizontal Reinforcement Steel Bar	Kiewit	Construction	Site					As a result, the work has been stopped and an alternate RFI #236 has been written that has approved the trimming of steel column 1A's shear lug that allows it to fit properly within the shear key pocket above the partially cut horizontal reinforcement steel resolving the encountered conflict. In addition, the Engineer of Record has examined the partially cut horizontal reinforcement steel bar and has determined that it is of adequate strength to utilize in place as is.		9/10/2020 9/11/202 9/10/2020 9/11/202		9/18/2020 10/13/2020	above. CLOSED	VES Chart
	APCI - N2 Compressor       APCI performed Charpy Impact Testing on carbon steel welding procedure for the weld metal and heat affected zone         Skid - Base Metal Charpy       for the N2 Compressor Skid in accordance with the project specifications, ASME B31.3, the Contract and the National         CS       Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the National Grid         Weld Policy Section 5 Content; Subsection 5.1 Scope; Paragraph d. Procedures; Subsection 2) Testing;       Subparagraph iCharpy V-Notch Toughness testing of the base metal and base metal affected zone in         accordance with the requirements of ASME Section IX; Subsubparagraph 1. Three (3) test specimens shall be tested       N/A         from each weldment location, i.e., base metal, weld metal, and heat affected zone and shall meet the following       N/A         specified maximum test temperatures: a. 20 ft-lbs. at +20 degrees F. for buried transmission and distribution piping       systems; b. 20 ft-lbs. at -20         degrees F for National Grid Gat Station piping systems"       being systems"       being systems"	Kiewit	OSSQ	APCI				Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202	0 9/12/2020	12/4/2020	CLOSED	APCI - we don't have WPS for the first of the second secon
	APCI - Compander Skid - Base Metal Charpy CS Base Metal Charpy CS APCI performed Charpy Impact Testing on carbon steel welding procedure for the weld metal and heat affected zone for the Compander Skid in accordance with the project specifications, ASME B31.3, the Contract and the National Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5 Content; Subsection 5.1 Scope; Paragraph d. Procedures; Subsection 2) Testing; Subparagraph iCharpy V-Notch Toughness testing of the base metal and base metal heat affected zone in accordance with the requirements of ASME Section IX; Sub subparagraph 1. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone and shall meet the following specified maximum test temperatures: a. 20 ft-lbs. at +20 degrees F. for buried transmission and distribution piping systems, b. 20 ft-lbs. at 0 degrees F for above ground transmission and distribution piping and c. 20 ft-lbs. at -20 degrees F for National Grid Gas Station piping systems"	Kiewit	OSSQ	APCI			l	Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.						
)85-R1	APCI - Cold Box - Base Metal Charpy CS Metal Charpy CS APCI performed Charpy Impact Testing on carbon steel welding procedure for the weld metal and heat affected zone for the Cold Box in accordance with the project specifications, ASME B31.3, the Contract and the National Grid Weld Policy. APCI did not perform Charpy impact testing for the base metal as described in the National Grid Weld Policy Section 5 Content; Subsection 5.1 Scope; Paragraph d. Procedures; Subsection 2) Testing; Subparagraph iCharpy V-Notch Toughness testing of the base metal and base metal heat affected zone in accordance with the requirements of ASME Section IX; Sub subparagraph 1. Three (3) test specimens shall be tested from each weldment location, i.e., base metal, weld metal, and heat affected zone and shall meet the following specified maximum test temperatures: a. 20 ft-lbs. at +20 degrees F. for buried transmission and distribution piping systems, b. 20 ft-lbs. at 0 degrees F for above ground transmission and distribution piping and c. 20 ft-lbs. at -20 degrees F for National Grid Gas Station piping systems"	Kiewit	OSSQ	APCI			l	Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202	9/12/2020			YES APCI - Did not perform Charpy's a Need to verify if there is on this cold box - get wit
	Chart - Nitrigen Final Line Skid- Base Metal Charpy CS CS CS CS CS CS CS CS CS CS CS CS CS	Kiewit	OSSQ	Chart				Use-As-Is	Verify all Procedure Qualification Records contain Charpy impact testing results in compliance with B31.3 and if acceptable Use As Is.		9/10/2020 9/11/202 9/10/2020 9/11/202			CLOSED 10/17 CHC This NCR can be closed. The Vaporizers are manufactured from Aluminum and the operating temperature does not dictate Charpy Impacts for this Material per the Kiewit Welding Engineering Group. The Weld Procedures have ben approved "as-is" 10/31 CHC Please request to close this NCR 11/7 CHC Please request to close this NCR VOID	VES Justin M Not applicable no CS on piece of equipment VER IF SS IS USED IN THIS VES EQUIPMENT
0087	Use Of releasing agent on Concrete forms After removal of formwork, portions of the concrete placed this Wednesday were observed to have porous surface areas. This surface issue is believed to be the result of Kiewit placing concrete without coating the job-built forms with a release agent (the job-built forms were observed to have concrete adhered to their face after removal).	Kiewit	Construction	Site							9/22/2020	9/12/2020	11/17/2020 1/7/2021		
0088	Duckbank conduit D0125 Conduit D-0125 moved during concrete placement encroaching on the Termination Cabinet Steel Support base plate for the Feed Gas Booster Compressor.	Kiewit	Construction	Site							10/1/2020 10/5/202	0 10/6/2020	10/6/2020 1/7/2021	RFI-000240 Generated. Field cut the 2 west anchor bolts and post install 2 3/4" anchor bolts 3"s to the east from the original anchor location. CLOSED	10
089	Road Clash Roadway section as shown on 102761-B-CIV-CD-3003 detail STA. 10+00.00 to STA. 14+81.20 does not account for 4' 6" wide section of Rip Rap R-6 gradation as shown on 102761-B-STR-SF-5175 detail 8 (Thornton Tomasetti). This results in a 4'6" road width reduction unless modifications are made to 102761-B-STR-SF-5175 detail 8 to widen the roadway	Kiewit	Engineering	Site							10/1/2020	10,012020		Determine potential to modify slope stability design to widen roadway. Potential to locate vapor barrier further north to allow for wider roadway. OPEN	10
090	Compressor Building Anchor Bolt Off Coordinates PSI CR Images quality for shop welds on spool 281.	Kiewit Kiewit	Engineering	Site							10/2/2020		1/7/2021	CLOSED	
0091	fabrication         fabrication           Grout Breaks test results         Some Grout 28 day Break test results are below the 8000 psi requirement of 102761-B-STR-SPC-0022 Nonshrink at 28 days are below         Cementitious Grout, Section 2.0 Modifications to PIP STS03600, Item 3 "replace 5,000 psi with 8,000 psi."	Kiewit	Engineering	Site							12/17/2020			OPEN OPEN	10
0093	Incorrect SMAW filler used on CS welds were completed using E7018 vs E7018-1 as required per WPS 1-1-BA-02128-C. Those welds were: F-NR-2008-01-FW-01 B-NR-2101-02-FW-01 ER70S-2 used in liue of 2 welds were found to have ER70S-2 used for GTAW versus the 80S-Ni1 required per WPS 1-1-BA-01195-C. Welds	Kiewit	Quality	Site							1/20/2021		2/11/2021	CLOSED	
0094	80S-Ni1         affected by this are D-NR-2105-FW-01, D-NR-2010-03-FW-02.         Close down the filler metal filler metal, the Quality Control Inspector discovered that the rod caddie contained two different classifications of filler metal (ER70S-2 and ER80S-Ni1). It was assumed control room, audit each filler	Kiewit	Quality	Site							1/26/2021		2/11/2021	CLOSED	NO
t	the welder and in the filler that both types of filler metals were included in the weld. metal control room Cold Box EMT & Conduit not per Spec or NFPA 3.3.4 & 3.35 & NFPA ART 356.6, 358.12 (4), ART 501.10 (A) (1) & (B) (1) & Flexible Conduit per above		Construction	Site							1/26/2021			OPEN	10
0096	& Flexible Conduit per above	1	1		1	1					2/11/2021	1	2/11/2021	CLOSED	

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