

INSPECTION AND TEST PLAN



Project: Iron Bridge SMPEI Process Plant Construction – Dry Plant
FMG Document No: 662NSC2002-2000-IT-QA-0011
Document No: C292-QU-ITP-0011
Revision: 1
Project No: C292
Contract No: 662NSC2002-0000-CO-CP-0002
Prepared By: J. Lu
Approved by: Fabien Fernandez

Scope: Gyrotary Crusher Installation
Work Pack No:

Control Point H = Hold Point (Work must not proceed to the next step until this activity is completed and a signature obtained); W = Witness Point (Notify to permit witness, work can proceed if witness does not attend at agreed time);
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Resp. Person QC - Quality Inspector; PE - Project Engineer; CQR - Client Quality Representative; CI - Coating Inspector; PM - Project Manager; SS - Site Supervisor; DC - Dimension Checker; WE - Welding Engineer; PP - Pre-processing Personnel

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						CIVMEC	CLIENT	
1	Submission/ Approval of Documentation							
1.1	Submit Gyrotary Crusher Installation Inspection & Test Plan for FMG Approval	662NSC2002-2000-SW-CN-0002_4 100-SP-QA-0001_1	662NSC2002-2000-SW-CN-0002_4 Cl. 10.3 100-SP-QA-0001_1 Cl. 2.3	Approved ITP	QC / PE	H / R	H / R	
1.2	Ensure Manufacturer's Installation Instructions and Manuals Have Been Provided with Equipment	662NSP2054-0000-IM-QA-0001_A Manufacturer's Recommendation 100-SP-ME-0002_0	662NSP2054-0000-IM-QA-0001_A Manufacturer's Recommendation 100-SP-ME-0002_0 Cl. 3.3	Manufacturer's Installation Instructions	SS / PE	H / R	H / R	
1.3	Submit lift studies as per FMG Lifting Procedure for FMG Review & Approval	100-PR-SA-1036_5	100-PR-SA-1036_5 Cl. 3.4	Approved Lift Study	SS / PE	H / R	H/R	Hold for critical lifts only
2	Materials							
2.1	Inspect Supplied and Free-Issued Mechanical Components for the Following: • Equipment Identification & Nameplate; • Conformance to Specification and Drawings; • Damaged or Missing Components; and • Review Material Certification and Material Traceability Records. NOTE: Non-Conforming Materials Shall be Segregated, Quarantined and a Dilapidation Report Completed.	662NSP2054-0000-IM-QA-0001_A 100-SP-ME-0002_0	662NSP2054-0000-IM-QA-0001_A 100-SP-ME-0002_0	Delivery Dockets Material Certificates Dilapidation Report	SS / QC / PE	S / R	S	
2.2	Store and Preserve Equipment as Per Manufacturer's Recommendation	662NSP2054-0000-IM-QA-0001_A 100-SP-ME-0002_0	662NSP2054-0000-IM-QA-0001_A 100-SP-ME-0002_0	Signed ITP	SS / QC / PE	S	S	
3	Calibration							
3.1	Ensure All Inspection, Measuring and Testing Equipment is Calibrated Including: • Coupling Laser Alignment Tool; • Machine Levels; • Dial Gauge Indicators; and • Torque Tooling • Survey Equipment	662NSP2054-0000-IM-QA-0001_A 100-SP-ME-0002_0	100-SP-ME-0002_0 Cl. 4	Calibration Certificates Signed ITP	QC / PE	R	R	
4	Acceptance of Gyrotary Crusher Support Structure							
4.1	Inspect Support Structure for Anchor Bolts or Bolt Holes at Correct Location, Level and Alignment	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings 100-SP-ME-0002_0	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings 100-SP-ME-0002_0 Cl. 9.1 & 9.2	Foundations As-Built Survey & Acceptance	SS / PE	S / R	S	
5	Gyrotary Crusher Installation							
5.1	Survey & Install shims at base plate locations where required	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyrotary Crusher ITR	SS	R	H	
5.2	Lift & Land the main frame onto the support structure, align, survey and bolt out	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyrotary Crusher ITR	PE	W	H	
5.3	Carry out epoxy grouting between bottom shell and concrete foundation	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	ITP C292-QU-ITP-0009 Grouting	SS / PE	H	W	
5.4	Install lower shell to base shell, align and bolt out	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyrotary Crusher ITR	SS	R	S	
5.5	Install upper shell to base shell, align and bolt out	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyrotary Crusher ITR	SS	W	S	

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 Prepared By: J. Lu
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Scope: Gyratory Crusher Installation
 Work Pack No:

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5.6	Install concave liners and fill gaps with gypsum	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyratory Crusher ITR	SS	W	S	
5.7	Epoxy concave liners	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyratory Crusher ITR	SS	W	S	
5.8	Install Drive Motor Base onto support structure and bolt out	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyratory Crusher ITR	SS	R	S	
5.9	Install and align Drive Motor and shaft, shim Drive Motor if required to level, bolt out to base	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	Signed ITP FMG Gyratory Crusher ITR	SS	R	H	
5.10	Carry out epoxy grouting between motor base and foundation	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	662NSP2054-0000-IM-QA-0001_A IFC Vendor Drawings	ITP C292-QU-ITP-0009 Grouting	SS	H	W	
5.11	Install Main shaft	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	Signed ITP FMG Gyratory Crusher ITR	SS / PE	R	H	
5.12	Install spider and bushings	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	Signed ITP FMG Gyratory Crusher ITR	SS / PE	W	H	
5.13	Torque down shell and spider bolts	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	Signed ITP FMG Gyratory Crusher ITR	SS / PE	W	S	
5.14	Install hydraulic and lubrication unit and associated piping	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	FMG ITR - Lubrication System Subcontractor ITP	SS / PE	W	S	
5.15	Install chiller unit	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	Signed ITP FMG Gyratory Crusher ITR	SS / PE	W	S	
5.16	Install blower unit	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	Signed ITP FMG Gyratory Crusher ITR	SS / PE	W	S	
5.17	Carry out flushing and first fills	662NSP2054-0000-IM-QA-0001_A	662NSP2054-0000-IM-QA-0001_A	Flushing Report, First Fill Records	SS / PE	H	H	
6	Final Inspection							
6.1	Complete Final Inspection of Installed Equipment	100-SP-ME-0002_0 662NSP2054-0000-IM-QA-0001_A IFC Drawings	100-SP-ME-0002_0 662NSP2054-0000-IM-QA-0001_A IFC Drawings	Inspection Test Records Punchlist	SS / PE	R	R	
7	Finalise Documentation							
7.1	Redline Drawings Verified for Relevant Equipment	662NSC2002-2000-SW-CN-0002_4 100-SP-QA-0001_1	662NSC2002-2000-SW-CN-0002_4 Cl. 8.4 100-SP-QA-0001_1 Cl. 2.8	Redline Drawings	QC / PE	R	R	
7.2	Complete Construction Verification & Punchlisting	662NSC2002-2000-SW-CN-0002_4 100-SP-QA-0001_1	662NSC2002-2000-SW-CN-0002_4 Cl. 9.2 100-SP-QA-0001_1 Cl. 2.8	Approved Construction Verification Documentation Signed-off Punchlist	QC / PE	R	H	

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SIGNATURE IDENTIFICATION REGISTER				
NO	NAME	SIGNATURE	POSITION TITLE	ORGANISATION
1				
2				
3				
4				
5				
6				