

Client: Covalent Lithium Kwinana		Ref No: COV-TEN-CON 514		ITP Rev No: 1	
Activity: Stack Removal and Installation for Train 1 & Train 2		SRG Ref No: COV-TEN-CON 514- Stack Removal & Installation			
Contact Details		Process Qualifications:		Summary or Requirements	
Client Rep: Deepak Gupta				Principle Codes / Standards	Records retained as marked:
SRG Rep: Adam Riley	Structural Bolting Procedure	AS1252 AS5131	AS1554	Welding of steel structures	Survey Report ☒
Sub-Contractors	Lifting & Rigging Procedure	AS2550	AS4100	Steel Structures	Shim Thickness Record ☒
	Rope Access Procedure	IRATA	AS4291	Mechanical Properties of Fasteners	Splice Flange Connection Record ☒
	Survey & Alignment	Project Spec	AS2550	Cranes, Hoists and Winches-Safe Use	Weld traceability Record ☒
	Installation Method	Approved Methodology	AS5131	Structural Steelwork Fabrication	Flange Management ☒
Surface Treatment: NA	Working at Heights	COV-000-HS-PRO-0022_5	AS4839	Safe use of Oxy fuel/gas	Tension/Torque Record ☒
NDT: NA	Traceability:		AS1170	Structural Design Actions	
Pressure Test: NA	Survey/Alignment Record	☒	AS1657	Fixed Platforms, Walkways, Stairways and Ladders	
Surveillance/Inspection Key Hold point (H): Nominated point beyond which work shall not proceed verified acceptance by nominee. Witness point (W): Points at which the nominee shall be notified and invited to witness an activity, but further work may proceed without presence of the nominee. Review (R): Verify by examination of documentary evidence that inspection/tests have been satisfactorily conducted. Surveillance (S): Continuing evaluation of the status methods, analysis of records and monitoring of activities on a random basis to ensure quality requirements will be met. Visual (V): 100% visual inspection of work/item to ensure compliance with code/specification. Dimensional (D): Measurement of critical dimensions to ensure work/item is within tolerance.	Lift Study Reference	☒			Notes
	Bolt Traceability Record	☒			
Prepared by: Adam Riley	Date: 25-05-2026	Approved by:	Mark Cowle	Date: 25-05-2026	

Client Specifications		Other Specifications	
H361294-00000-230-242-0001	Protective Coating Specification	ANSI B16.5	Pipe Flanges and Flanged Fittings
H361294-00000-230-210-0001	Structural Design Criteria	AS 1111	ISO Metric Hexagon Bolts and Screws
H361294-00000-232-242-0001	Structural Steel Specifications	AS1112	ISO Metric Hexagon Nuts
AS/NZS 1554.1-1554.6	Structural Steel Welding	AS 1237	Plain Washers for Metric Bolts, Screws and Nuts
H361294-00000-240-210-0001	Mechanical Design Criteria	AS 1252	High-Strength Steel Fastener Assemblies for Structural Engineering – Bolts, Nuts and Washers
H361294-00000-240-210-0002	Layout Design Criteria	AS 1554	Structural Steel Welding Code
H361294-00000-250-210-0001	Piping Design Criteria	AS 2700	Colour Standards for General Purposes
H361294-00000-240-242-0001	Mechanical Standard Specification	AS 3678	Structural Steel – Hot Rolled plates, floor plates and slabs
COV-000-HS-PRO-0022_5	Working at Height Procedure	AS 3679	Structural Steel – Hot Rolled Bars and sections
COV-000-HS-PRO-0033	Plant And Equipment Safety Procedure	AS 3990 - 1993	Mechanical Equipment – Steelwork
COV-000-HS-PRO-0037	Health And Safety Consultation and Communication Procedure	AS1891	Industrial fall-arrest systems and devices
COV-0000-HS-STD-0004	Safety Standard-Cranes and Lifting	AS 3905	Quality System Guidelines
COV-0000-HS-STD-0001	Safety Standard-Vehicle and Driving	AS 4100	Steel Structures
COV-0000-HS-STD-0007	Safety Standard-Plant and Equipment	AS 4680	Hot Dip Galvanised (zinc) coatings on fabricated ferrous articles

COV-COM-POL-0001	Supplier Code of Conduct	AS 5131	Structural Steelwork – Fabrication and Erection
COV-0000-HS-PRO-0048	Cranes and Lifting Procedure	AS 1319	Safety Signs for the Occupational Environment
COV-0000-HS-PRO-0002	Fitness for Work Procedure	AS 3905	Quality System Guidelines
COV-0000-HS-PRO-0014	Permit to Work Procedure	AS1418	Cranes, hoists and winches,
COV-0000-HS-PRO-0031	Barricading, Demarcation and Signage Procedure	AS2550	Cranes, hoists, and winches – Safe use,
COV-0000-HS-PRO-0049	Extreme Weather Procedure.	AS3775	Chain Slings
COV-0000-HS-PRO-0022	Working at Heights Procedure	AS4991	Lifting Devices
COV-0000-HS-REG-0009	Cranes and Lifting Register	AS4839	Safe use of Oxy fuel/gas
COV-0000-HS-FOR-0031	Critical Lift Plan Form		
COV-0000-HS-PRO-0012	Scaffolding Procedure		
H361294-00000-250-242-0005	Piping Fabrication and Installation Specification		
H361294-00000-232-294-0010	Horizontal Bracing Details		
H361294-00000-232-294-0011	Bracing End Connection Details		
H361294-00000-232-294-0013 & 0014	Column and Beam Splice Details Sheet 1 & 2		

Project:		Calclner Off-Gas Stack Extension		Client:		Covalent Lithium		ITP No:		COV-TEN-CON 514- Module Assembly		Title:		Stack Removal & Install on Train 1	
Location:		Covalent Lithium		Date:		22/05/2026		Level:		Working at Heights		Grid Ref:			
Developed by:		Adam Riley		SRG Rep:		Adam Riley						Designer:		Carnac Engineering	
Ref:		Work Items/ activities to be verified		References (Drawing No. Standard, Client Specification)		Acceptance Criteria Specification Ref. Consultant Reports		Inspection Code		Inspection Frequency					
1.0		Pre-Deliverables													
1.1		Approved Methodology, SWMS, ITP, lift study reference, Traffic Management plan, WHS Documentation and Stack segment installation sequence		COV-TEN-CON 514 SOW, Methodology Rev 3.2, SRG WHS Plan, SRG SWMS, IRATA Cert, AS 2550		Approved/current documents available before works commence.		H/R		0		21/05/2026		Approved	
1.2		Pre-start/JHA/CRAV permits, Weather condition and personnel competency records verified for installation activities. Verify segment drawings, orientation, lifting points/runions, weights and rigging requirements. Lift study and rigging plan reviewed for each lift.		Lift Studies, AS 2550, AS 1418, AS 4991, IFC Drawings		Record Complete prior to installation. Lift study approved and communicated to lift team. Segment ID, orientation and lift points confirmed.		R		Each segment		21/05/2026		Complete	
2.0		Existing Stack Removal													
2.1		Confirm isolations, permits, exclusion zones, rope access setup and rigging readiness before removal.		SRG WHS Plan, SWMS, Lift Study		Controls in place and removal sequence accepted.		H		Before removal		25/05/2026		Confirmed	
2.3		Unbolt and lift out existing stack sections in accordance with lift study.		Lift Study, AS 2550, AS 1418, COV-HS-PRO-0048		Segments controlled, lifted and removed safely.		W/S		Each lift		06/06/2026		Complete	

3.0	Tie in Flange Preparation								
3.1	Complete required repair/preparation works to lower interface/flange in accordance with approved procedure.	WPS, NDT, Weld Qual, SRG ITP Flange Installation	Repairs completed only with Covalent approval and inspection/NDT records.	H/W	As required	03/06/2026	Complete	9/6/26	12/6/26
3.2	Verify bolt/nut/washer traceability prior to installation.	AS/NZS 1252, AS 1110/1111, AS 1112, AS 1237, AS 4291	Bolt class, size/coating confirmed.	R	Every Delivery	21/05/2026	Verified	9/6/26	12/6/26
4.0	New Stack Segment Installation								
4.1	Pre-lift inspection of stack segment B-H, lifting points, orientation and bolting materials.	IFC drawings, COV-0000-HS-PRO-0048, Lift Study, AS2550, AS5131, AS1252	Correct segment, orientation and rigging confirmed.	W/V	Each segment	04/06/2026	Complete	9/6/26	12/6/26
4.2	Lift stack segments into position using approved rigging and crane configuration.	Lift Study, AS 2550, AS 1418, AS 4991	Lift executed within approved configuration and exclusion controls.	W/S	Each lift	04/06/2026	Complete	9/6/26	12/6/26
4.3	Rope access guides segment into position and installs temporary supports/guides as required.	Methodology Rev 3.2, AS1891, IFC drawings, AS 2550, AS 1418	Segment supported and aligned for permanent bolting.	W/V	Each segment	06/06/2026	Complete	9/6/26	12/6/26
4.4	Install permanent bolts, nuts and washers at stack flange connection.	AS/NZS 1252, AS 1110/1111, AS5131	Correct bolting installed and connection aligned before final tensioning.	W/V	Each flange	06/06/2026	Complete	9/6/26	12/6/26
4.5	Stack Flange Bolting and Torquing using 4-stage Star Pattern Method. Grade 8.8 stack flange bolts tightened to 300 Nm minimum using calibrated torque equipment by 4-stage star/cross pattern	AS 1110/1111, AS 1112, AS 1237, AS5131, AS1252, ASME PCC-1	Final torque achieved and recorded.	R/S	Each flange	10/6/2026	Complete	10/6/26	12/6/26
4.6	Install keeper brackets, closure beams, stack guides and supports as per drawings.	IFC drawings, Methodology Rev 3.2, AS/NZS 5131	Brackets/supports installed to correct location.	W/V	Each stage	10/6/2026	Complete	10/6/26	12/6/26
5.0	Survey and Verticality								
5.1	Progressive stack alignment/verticality survey after nominated segment stages with Module Installation.	COV-TEN-CON 514 SOW, Methodology Rev 3.2, IFC Drawings	Verticality/alignment confirmed before proceeding where nominated.	R/S	Progressive	18/06/26	Complete	18/06/26	12/6/26
5.2	Final stack alignment survey for each train.	COV-TEN-CON 514 SOW, Methodology Rev 3.2, IFC Drawings	Final survey confirms stack position and verticality within tolerance.	R/S	Each train	18/06/26	Complete	18/06/26	12/6/26
6.0	Rope access Derrigging								
6.1	Rope access removes shackles/slings, temporary rigging and redundant ropes after connection acceptance.	IRATA, Methodology Rev 3.2, AS1891, COV-000-HS-PRO-0022, 5, AS 4488, AS1891	De-rigging completed after connection stable and accepted.	W/S	Each segment	18/06/26	Complete	18/06/26	12/6/26

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6.2	Dropped object controls verified for tools, bolts, pins and rope access equipment.	AS4488, Methodology Rev 3.2, AS1891, COV-000-HS-PRO-0022_5, SRG SWMS	Tools/equipment tethered and exclusion zones maintained.	S/N	Progressive	25/06/2026	Complete	9/6/26	13/6/26
8.0	Completion Record								
8.1	Compile lift study, survey, Flange Management, Bolt Tension register and NDT Records.	Methodology Rev 3.2, AS5131, AS1252, COV-TEN-CON 514 SOW, Lift Studies, Bolt Register, flange management	Records complete and traceable to module/interface.	R	Each module	08/06/2026	Ongoing	9/6/26	13/6/26
8.2	Any repair/modification/deviation identified during installation submitted to Covalent before repair proceeds.	ITP, Covalent approval	No unapproved repair/modification undertaken.	R	As required	08/06/2026	Ongoing	9/6/26	13/6/26

Compliance Status	Yes	No	N/A	SRG Global Approval / Signoff		Client Acceptance/Approval and sign off	
Complies with Acceptance Criteria	Yes			Name: Adam Riley		Name: R. Pydipati	
Does Not Comply with Acceptance Criteria			N/A	Signature:		Signature:	
NCR No.			N/A	Date: 25/06/2026		Date: 26/6/26	