



Rubix

August 2021 | Issue 22



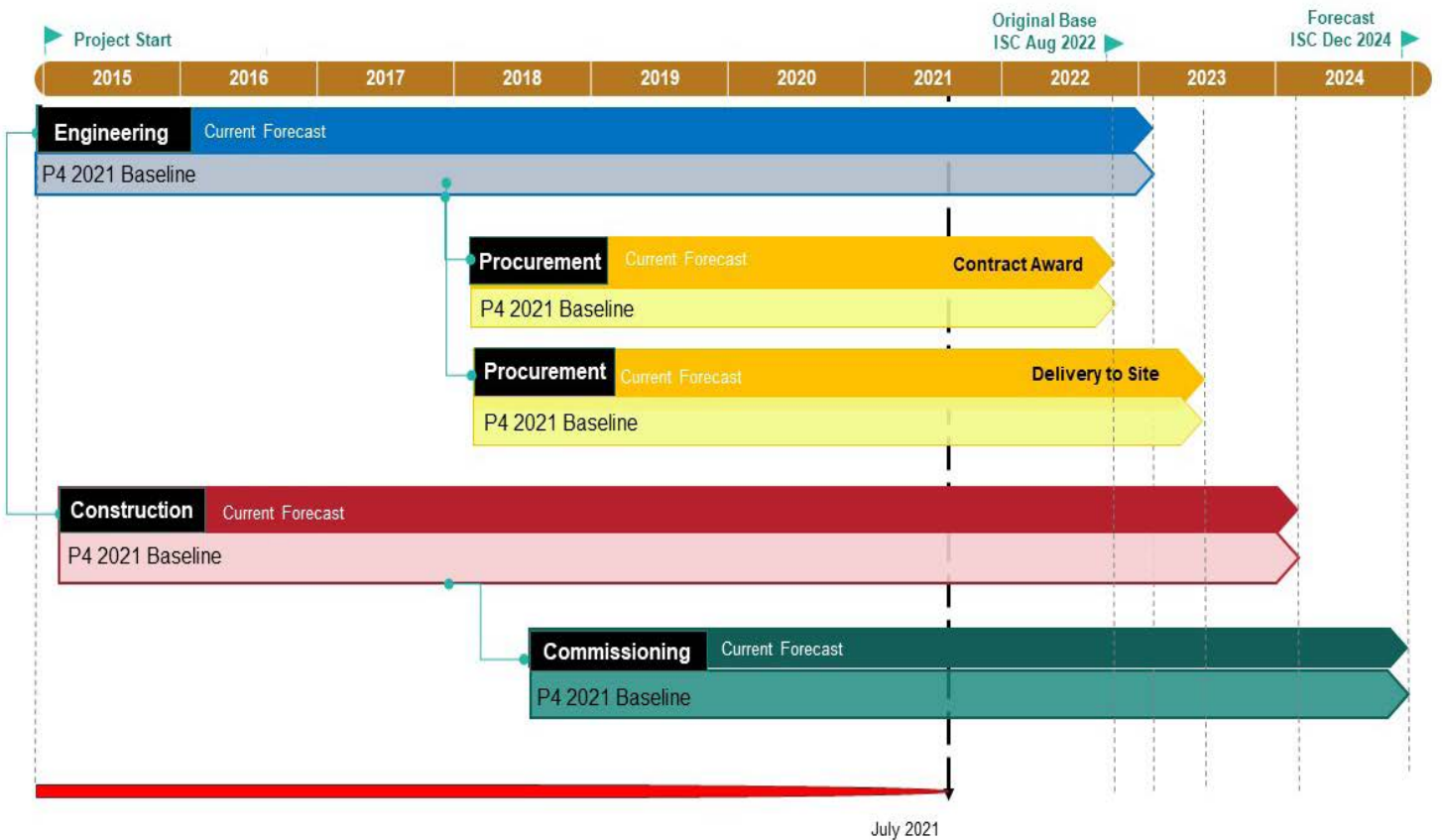
*This issue:
60te Package Handling Crane
2 000 000 hours
RoSPA Gold No.5
Manufacturing delivery
Where are we up to?*

In this issue

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Project timeline

Where we are and where we are going



Project update

We've done it again!



Geoff Blacklock, HSE Lead has the great pleasure informing you all that the BEP Project has once again achieved a RoSPA Gold Medal (5 consecutive Golds) Award.

Organisations receiving a RoSPA Award are recognised as being world-leaders in health and safety practice and every year, nearly 2,000 entrants vie to achieve the highest possible accolade in what is the UK's longest-running H&S industry awards.

The above achievement is a testament to all the hard work that has been demonstrated by everyone associated with the project for 5 consecutive years.

I am sure, that given the same vigilance and commitment which has been shown and the continued improvements to date there will be many more significant achievements by this Project Team.



NDA and IPAG Visit

A satisfactory visit took place on the 13th July following up on the their December 2020 visit to see what improvements have taken place since then.

Present were: Karl Mason SL, Dave Beirne SL, Mark Wareing NDA, Howard Carpenter IPAG, Richard Veazey IPAG, Tom Hyland JV, Phil Hammond JV, Dave Stockdale JV, Shaun Birkett JV, Nigel Thornthwaite JV.

60te Crane Factory trials

60t PHC Configuration Prior to Trials Commencing



Trolley Lift and rotation

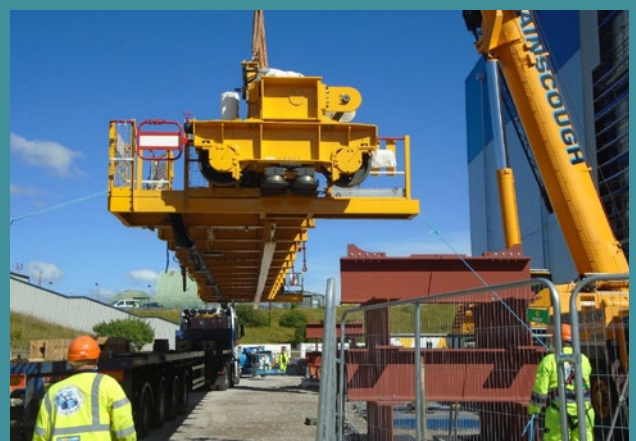


Link arms lowered to join the north and south girders



LT Catenary frame lift

60te Crane Girder delivery to site and transfer



60te Crane transfer



Arrival of the North girder of the Package Handling Crane and components. Right roof ready for opening.



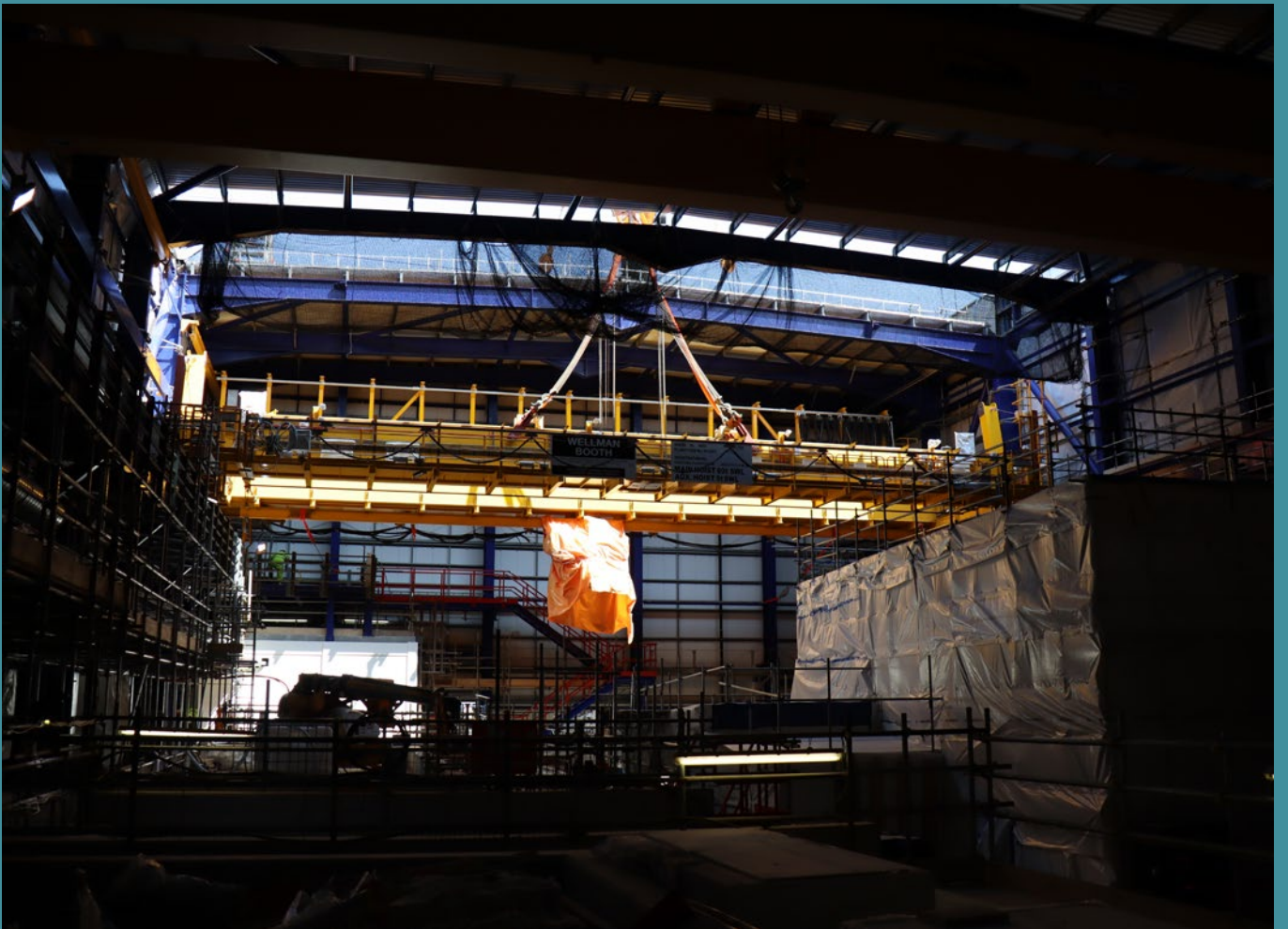
750te Crane assembly





Handler Crane Girder lifts





Package Handler Crane Trolley lift





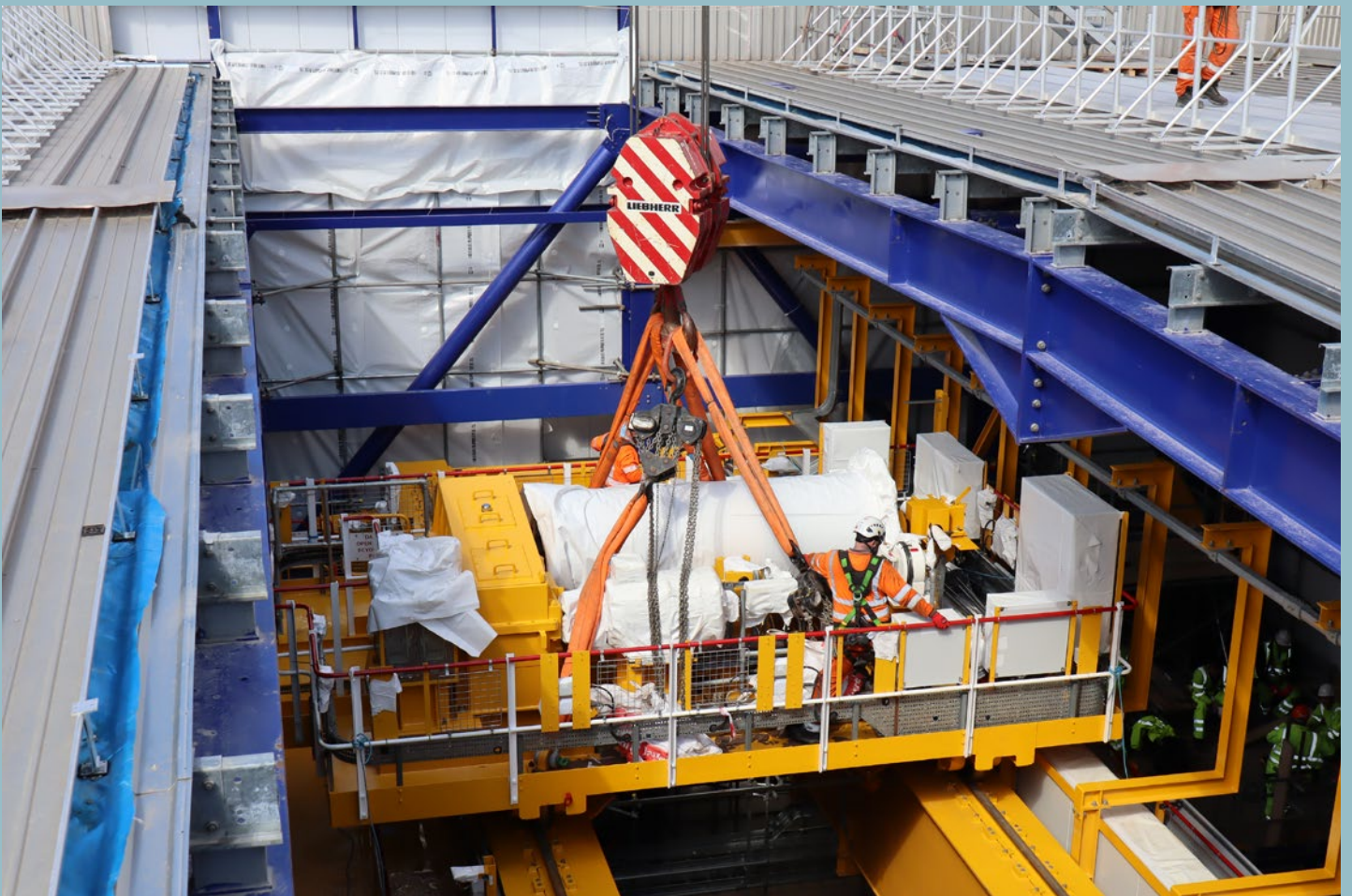
*Package Handler
Crane Trolley lift,
up & over the
parapet & down
into the roof
opening...*





*Package Handler
Crane Trolley being
rotated 360° before
being lowered into
its final position on
the girder rails.*





Construction: progress inside



Preparations for the installation of the 60te crane mean that large areas of the building are now shrouded in protective sheeting, for when the roof is open to enable it's installation.



TCA039 / 40 Re-bar Installation.



Waste Treatment cell, painting finishes above and below.



Progress inside cont...



Inside the Compressor House



Primary containment holds released after site visit

Construction: progress outside



RRRB Steel Erection – Final staircase module



Inside the Compressor House



General external views showing the extent of the completed cladding .



Cladding, progress on the rear of the Grout Plant.

Safety Improvement Plan

We must continue to Improve our Safety Focus

Despite the achievement, we must not be complacent and the Safety Leadership Team has issued the BEP Safety Improvement Plan such that we can continue to improve our focus, reduce hazards and improve the safety of the project environment. The BEP Safety Improvement Plan (SIP) has been jointly developed between JV and Sellafield so that we continue to strive for improved performance. This is a comprehensive document but a few highlights are tabled below. If you would like to know more about the details of the SIP please ask your Line Manager, Lead Team or Safety Team

TOPIC	AWARENESS AIM	EXAMPLES
ENVIRONMENTAL	Raise awareness of site environmental arrangements throughout the project to ensure compliance is continuously maintained	<ul style="list-style-type: none"> • Individuals to consider and respect environmental impact as they would conventional safety. • Comms & training on/off job as required.
HEALTH & WELLBEING	Individual knowledge and understanding of all aspects to 'Health & Wellbeing' and its impact and benefits	Health and Well-being Climate Survey. Develop plans to improve mental health and stress, physical factors such as sleep, fitness and illness plus general job satisfaction.
SAFETY	<p>PROCESS & PROCEDURES – Personal responsibility for understanding and following project processes and procedures</p> <p>LEADERSHIP – credibility of safety leadership (behaviours, messages, accountability)</p> <p>PLANNING – planning integration and ownership at the appropriate levels (planning each job / integration of short and medium term planning)</p> <p>LEARNING – reduce repetitive nature of incidents, sharing and communication, adaptability and approach</p> <p>BEHAVIOURS – consequential thinking and recognising behaviours are a choice</p>	<ul style="list-style-type: none"> • Refresh and communicate procedures on IMS. • Ensure access to all/Sharepoint and train users • Review and reinforce roles and responsibilities • Review and improve on boarding • Planning – Improve Line of Sight, Safe Systems of Work • Review Terms of Reference for Safety Leadership Team • Review and develop WI 359 – Monitoring and Review • Town Halls to communicate to project team • Continue to develop behaviours programme with DEKRA such as error traps/prevention
SECURITY	AWARENESS – Raise awareness of site security arrangements throughout the project to ensure compliance is continuously maintained	<ul style="list-style-type: none"> • Clear Desk • Muster/Swipe in-out • Review physical site security arrangements



HOURS WITHOUT A LOST TIME INCIDENT

The BEP project is proud to announce we have worked over Two Million Hours on the BEP Project without incurring a LTI. It is great news that the Project (Sellafield Ltd, Joint Venture and Supply Chain) have kept our combined team safe. Everyone on the project has played a part in reaching this figure including:

- Our Blue Collar/Tradespeople who provide us with Mechanical, Electrical and other practical skills.
- Our Supervision and Construction Management Team based at the Sellafield site
- All of our delivery and functional teams from across the disciplines, based at Washington House, Sellafield, Stockton, partner offices and of course those still working from home (including Commissioning, Commercial, Engineering, Health & Safety, Procurement, Project Controls, Project Management, Quality, Support Services)
- Our valued Supply Chain

2021 Milestones

Progress as of 27-07-21 on our major goals for the year.

TARGET DATE ACTUAL DATE	ACTIVITY ID	MILESTONE	APM	LEAD
08-02-2021	PR36-1QA4	Delivery of Air Compressors/ Recievers to Stores/ Site	PW	KS
16-03-2021 11-03-2021	PR07-30631	Delivery to Site of In Cell Stands & Fabrications – Waste Handling Table Supply (Pkge 07)	GH	KS
24-5-2021 18-03-2021	CBCM0331510xx	Box Operations Cell Maintenance Install BOC Handler onto the rails.	GH	SB
28-5-2021	MSALLDF	JV Design Freeze: All Essential Configuration Base-line Documents issued.	n/a	KS
29-07-2021 1-06-2021	CWCM0217510c	Locate System 121 Bogle onto Rails. Delivered and moved into place.	GH	SB
06-08-2021	C1311691430	131 Rails installation completed, inspected & ICL Signed.	VF	SB
06-08-2021	CWC-M0214600yx	Waste Treatment Cell Install Maintenance Equipment Grid Line11-9 (520 Hatch / SS Cladding & local Kit)520 Hatch installed, inspected & ICL signed. (WTC works to allow LWB Handler move, complete)	GH	SB
12-08-2021	PR10-90061	Waste Handling Robots ready to deliver. (Pkge 10). Successfully Inspected for release, certified & signed for A200 Robots.	GH	KS
22-09-2021	CZZTCAO69370	Active Effluent Cell Temporary Construction Area Opening (TACO)21 Phase 1 Closure & pour complete.	JD	SB
30-09-2021	MSALLDOC	JV Detailed Design packages & configuration baseline documents complete .	n/a	KS
07-10-2021	C1331182720	System 133 Rails installation completed, inspected and ICL signed.	VF	SB
22-11-2021	C840MS85%	Installation of electrical and instrumentation primary containment in the whole BEP building at 85% (Approx.9,465 linear metres) based on 8/2019 PDMS Model	JD	SB
14-01-2022	CWCM0212341	Vertical Cell Door - Raise Door on Recovery System and move Long Wheel Base	GH	SB
21-07-21	CZXM260	60Te PHC Completion of bulk installation	VF	SB
23-09-2024	MSJV-EPCC05	JL Planned Completion - End of Inactive Safety Commissioning (ISC).	n/a	

Legend:

APM:PW: Paul Williams, GH: Gary Hope, VF: Vince Fleming, JD: Jeff Dutton
Lead Team: KS: Kevin Smith, SB: Shaun Birkett



R4 27-7-21 Progress 6&7

2021 Milestones

4. JV Design Freeze:

All Essential Configuration Baseline Documents issued.

The achievement of the Design Freeze milestone means we have completed the first of the two design critical milestones this year and further demonstrates the project's commitment to deliver BEP to programme. This milestone marks the end of the preliminary design phase with all essential categorised documents having been frozen with the completion and close out of all major HAZOPs and associated actions.

The deadline was at risk until a few days prior to completion and so the team worked collectively and with great determination to meet the date required. This important milestone could have only been achieved with SL and JV Design and Engineering teams' collaboration and concerted effort.

Why was it important?

The project had taken the approach at the outset for engineering to focus on the delivery of design packages to support construction work fronts. Achieving the milestone:

- Demonstrated that the maturity of the design is sufficient across all design packages
- Provided confidence to the JV partners, SL Exec and NDA that the project can deliver to the required stringent milestones.
- Built an environment of shared success as a result of pragmatic and collaborative working between the JV and SL engineering teams.
- Demonstrated that the programme in place is achievable providing a level of confidence and predictability for future activities.

**Andrew Sharman JV Snr. Engineering Manager,
Roger Hyde SL Project Engineering Manager**

"An excellent piece of work by everyone involved...You should all be proud of this achievement not just for what you delivered but how you delivered it."

Bill Holmes Project Delivery Director

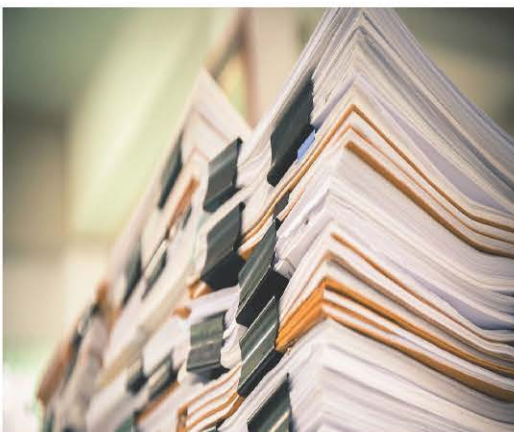
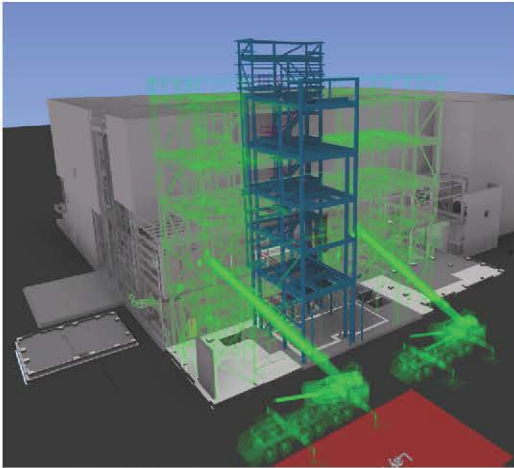


Image source:Construct Ed & emerji



2021 Milestones

5. Locate System 121 Bogie onto Rails.

Delivered and moved into place.



The 121 Skip Bogie was successfully installed into the Waste Treatment Cell (WTC) 2nd June 2021 ensuring that this project milestone was achieved seven weeks in advance of the target completion date of 29th July 2021. The achievement of this milestone is the result of collaborative efforts between Project Team, Qualter Hall and Sellafield Ltd.

The Bogie and Rail Assemblies were detail designed, manufactured and tested by the Vendor Qualter Hall with assurance provided from Delivery Team and SL Engineering

team. Collectively they have resolved difficult and challenging technical issues and reacted to an increasingly challenging programme due to the removal from service of the Handling Crane used to lift the 121 Skip Bogie into the WTC to ensure the target date was achieved.

The 121 Skip Bogie rails were released ahead of the Bogie completion and were installed by the Mechanical Installation Team. This scope was completed seven weeks ahead of the planned date and enabled the Bogie to be loaded straight onto the rails rather than being stored within WTC. This not only created additional storage space within cell that enabled other construction activities but also mitigated multiple lifts of the Bogie.



Key Personnel:

Given the challenges this is a significant achievement and recognition to the following persons is well deserved;

Stephen Pearce, JV Project Area Coordinator

Mark Terpilowski, JV PAC

Ian Wright JV Package Manager

Phil Davies, JV Project Lead Engineer

Andy Davies, JV Lead Engineer

Mick Wowk, JV Mechanical Project Engineer

Colin Goddard, QH Project Manager

Gary Thompson, JV Quality Assurance/
Control Engineer

Gary Marshall, QH Quality Assurance/
Control Engineer

Mark Ogden, SL Mechanical Integration
& Assurance Engineer

Sean Bridgen, JV Inspector

Peter Clark, JV Inspector

Dean Kidman, SL Inspector



2021 Milestones



6. Transfer Bogie Rail Instalation Complete

The installation activities for the 131 Top Opening Transfer Bogie Rail System was successfully completed on 22nd July 2021, 2 weeks ahead of its target completion date. This achievement is the result of great collaborative efforts between BEPDT JV, the Vendor and Sellafield Ltd.

With Rail Assemblies being detail designed by James Fisher Nuclear Ltd and manufactured by Steel Dynamics Ltd to the exacting standards necessary for the industry, and assured by the projects Quality Control Engineering teams.

The Top Opening Transfer Bogie (container) Rail System operates through three subterranean rooms in the Facility Building for an overall length of approx. 14m. The Bogie (not illustrated) will containing waste materials safely collected from operations elsewhere on the Sellafield site, it will run along the above rails before moving onto the next stage in the process.

The large quantity of welding required to install this system presented a significant challenge to the Construction Team in their attempts to maintain the specified tolerances for Rail Head Elevations and Eastings. The results achieved are the product of very high levels of Quality Control being applied to all welding activities in order to ensure repeatable results. These controls and the learning from experience associated with the work are now being applied to other similar installations in the project.

All of the Mechanical and Welding work was completed during permanent night shifts due to the COVID restrictions on personnel numbers, this presented additional challenges due to the impact this has on Engineering Support availability.

Given the challenges this is a significant achievement and we recognise the contributions of the following:

CS&A Team & the Altrad Team

Key Project Personnel:

Mark Terpilowski	JV Project Area Coordinator
Mick Wowk	JV Mechanical Project Engineer
Gary Thompson, John Musgrave	JV QC Engineers
Barry Eckersley	JV Lead Surveyor
Waqas Ahmed	JV QC Inspector
Darren Morris	JV Project Lead Engineer
Rachel Scott	JV Snr. Mechanical Engineer
Simon Ellam	SL Mechanical IC
Mark Kendall	SL Construction Engineer
Paul Graham	SL Senior Construction Engineer

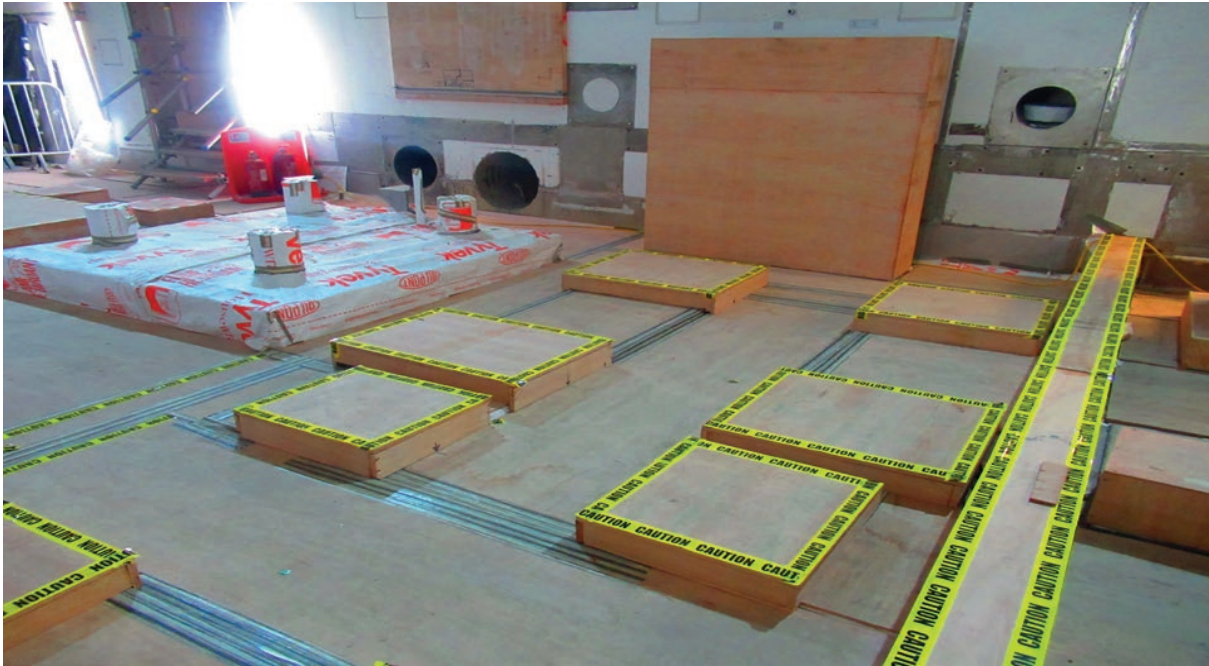
Key Supplier Personnel:

Colin Cotterell	JFN Project Manager
Andy Parker	JFN QA Engineer
Carl Banks	JFN Lead Designer



2021 Milestones

7. WTC Hatch, cladding & maintenance equipment installation



The achievement of this milestone enables the future transfer of the SWB and LWB Handlers into the Waste Treatment Cell, and the construction of a safe access platform to support subsequent Handler Installation works.

This milestone consisted of the following key site works:

- 1. Installation of Box Liner Import Hatch B, Upper and Lower Guide Frames:** This large floor hatch acts as the main import and export route between the WTC and the Transfer Corridor and is a critical design interface for all WTC operations.
- 2. Completion of the local Grillage and Stainless Steel Cladding:** All the local grillage and cladding in the WTC area has now been completed by Shepley Engineering Ltd with technical support from the JV Engineering team; this includes the complex tie-in with the Upper Guide Frame.
- 3. Installation of Closure Plate on Box Liner Import Hatch A:** This is a legacy item that is no longer in operational use; the installation of this Closure Plate is required to seal this hatch and balance the Ventilation System that services the WTC.
- 4. Installation of the C5 Ventilation Inlet Shield Block and Support Bracket.**
- 5. Installation of Shield Plugs within Box Liner Import Hatch B.**

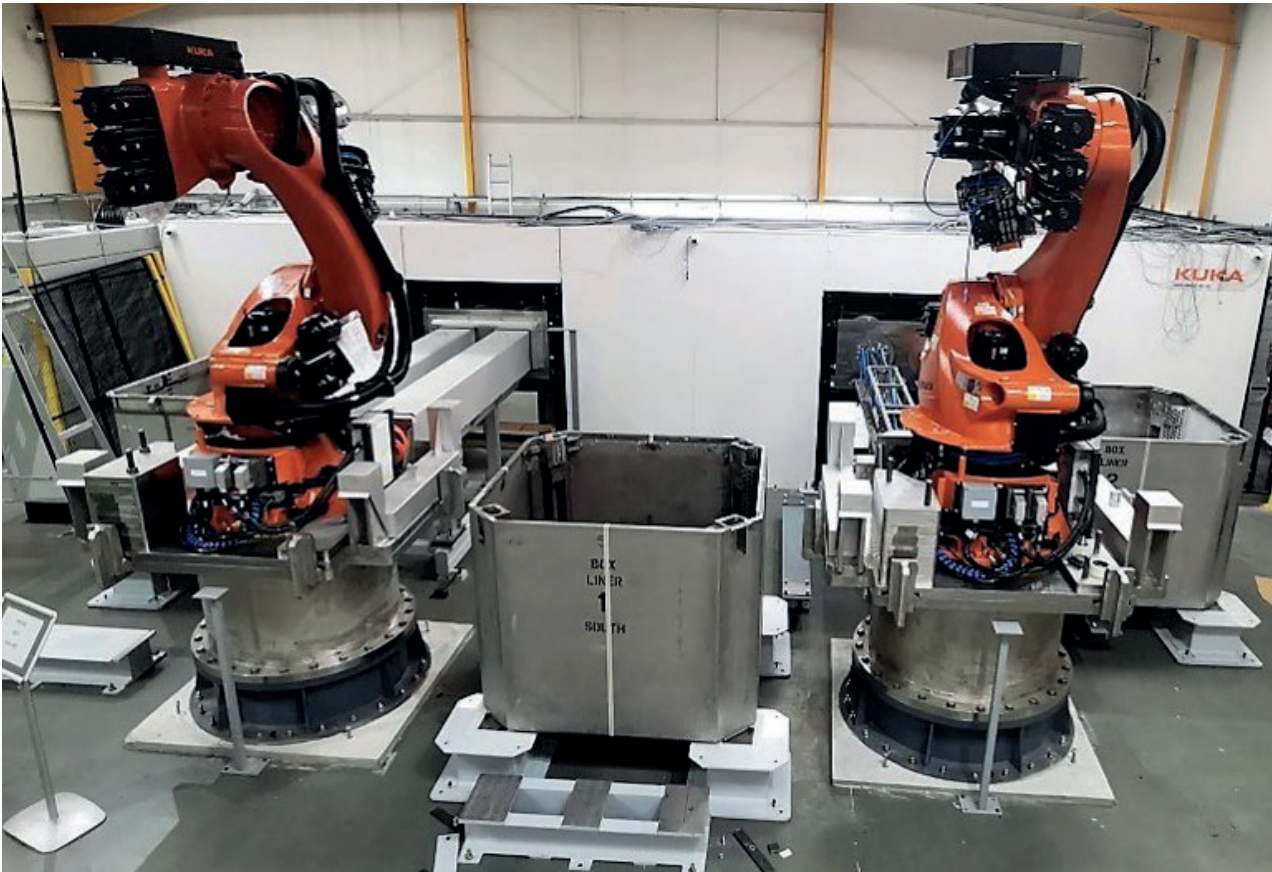
One of the main contributing factors for the achievement of this milestone was the highly collaborative relationship between the BEPDT Construction, BEPDT Engineering and Sellafield Ltd Intelligent Customer Teams that resulted in effective and timely resolution of all technical issues encountered.

Thanks to all that contributed to the completion of this Milestone.



2021 Milestones

8. WTC Robots ready to deliver



Innovative engineering design, research and rigorous testing, has for the first time enabled commercially available robots to be suitably modified and adapted to be used in a nuclear facility instead of 'through wall manipulators'. Not satisfied with one 'World First' the team behind these robots development have also delivered a first of its kind software system to enable remote repair in case of failure.

Manufactured by Kuka to the exacting standards required by the client for the BEP facility. This has only been possible due to very close collaborative working between Sellafield Ltd, its partners and the supply chain. Project Management, Quality, Engineering, Commissioning, Pre Operations and Commercial have all worked together over the last five years to make this milestone a resounding success.



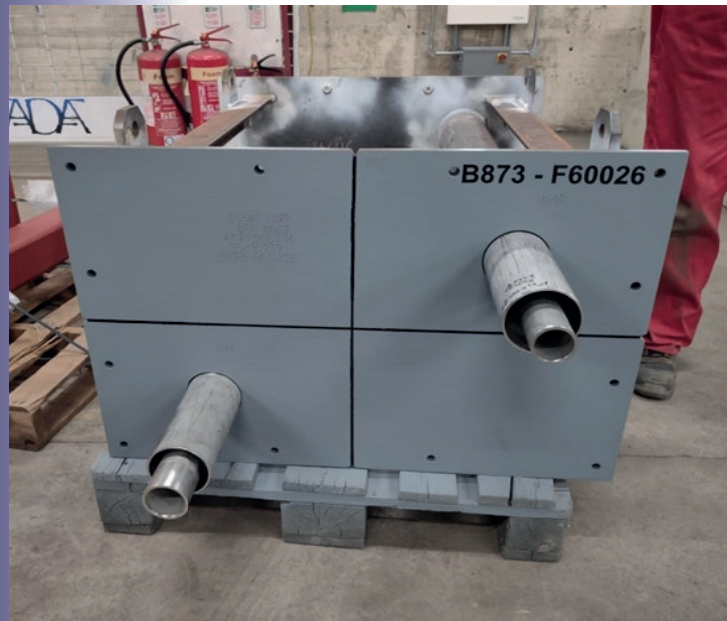
Manufacturing...



Kuka Robots Schunk Tool Adaptor Plates fitted to Tool stands – Primary and Secondary



Manufacturing...



F60026 Wall box delivered



CCTV System

Manufacturing...



Sample Pots delivered to site
& installed awaiting surveying
& fixing



staircase installation

Manufacturing...

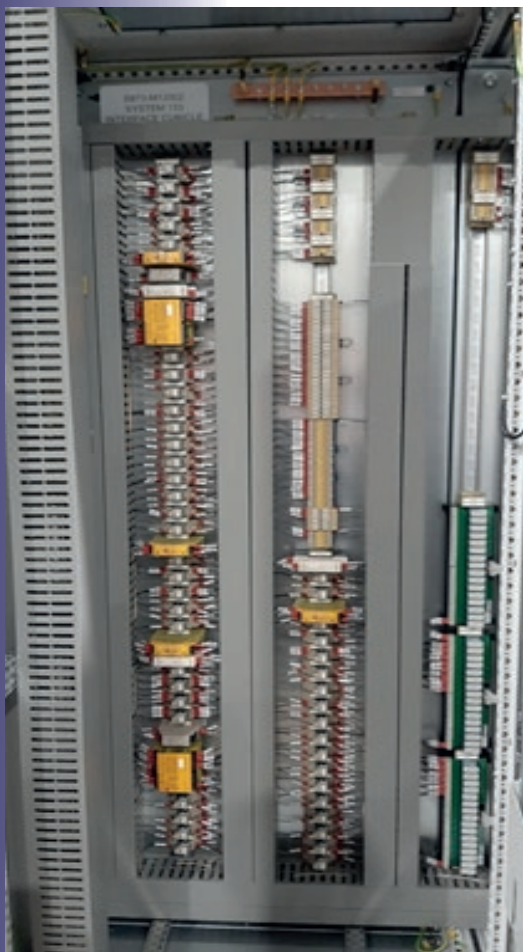


P98 Level 2 Switchboards



Workstation Pedestals for data entry into the WTIS system

Manufacturing...



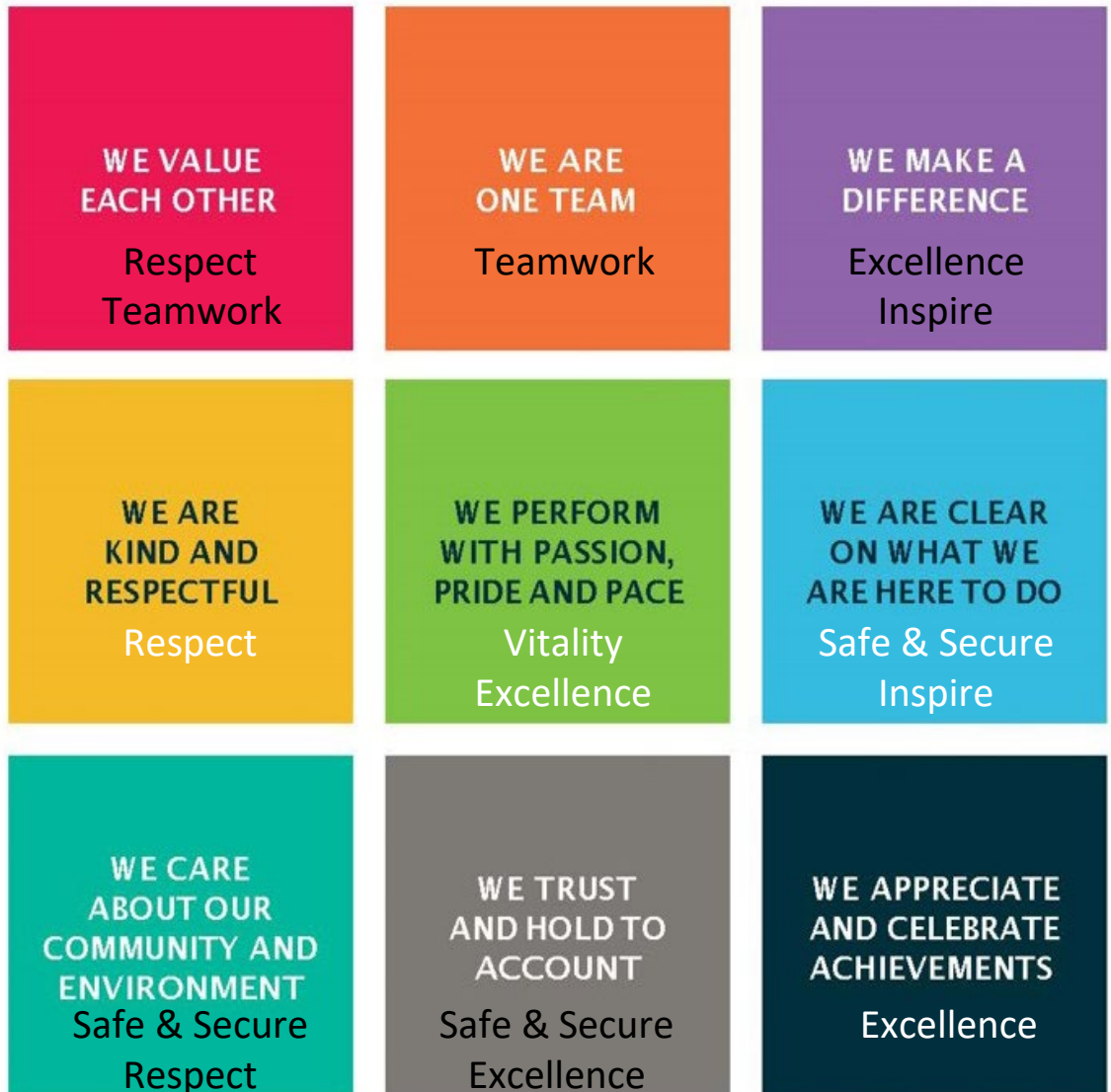
PLC133 panels going into CAT

From **STRIVE**

to Manifesto

The BEP Project is adopting Sellafield Ltd.'s Manifesto from June 2021. This replaces the **STRIVE** project values which have served us well for six years.

This diagram shows the many commonalities between the values of STRIVE (black lower case text) and the SL Manifesto (white upper case text).





**JOIN US FOR A
BULLYING AWARENESS
WORKSHOP DELIVERED BY**

AKT PRODUCTIONS

Who have been developing and delivering inspirational workshops throughout various industries for over 20 years

THIS IS NOT YOUR USUAL TRAINING. AKT PRODUCTIONS USE ACTORS TO PROVIDE INTERESTING AND THOUGHT-PROVOKING LEARNING!

Legacy Ponds have been lucky enough to work with them to develop a workshop on modern day bullying, what it looks like and how can we deal with it

Recently we were lucky enough to attend one of the Bullying awareness workshops which were provided by Sellafield Ltd and found it to be very informative & beneficial. I say lucky because they were only made available to none Sellafield Ltd staff at the last minute through the Wellbeing Forum. Which is a shame as they have been 'on hold' for eighteen months with the original roll-out planed for October 2019.

The workshop was delivered by AKT, an acting company specialising in behavioural safety, who use role-play to create scenarios showing the impact of workplace bullying from all aspects and points of view.

Whilst it was obviously tackling direct bullying within one to one peer, and manager/employee relationships, it also deeply explored more indirect forms of bullying such as social exclusion, clique cultures, and indirect bullying through poor management skills and pressure from the chain of command.

The workshop was very interactive, inviting the audience to ask questions of all individuals involved, regardless of their different levels of authority, to address 'hot spots' this allowed the attendees to understand where using different skills and techniques could have rendered more positive outcomes.

It allowed us all to explore both our conscious and unconscious bias and were we surprised at one point to find ourselves being perpetrators. We came away with a greater understanding of the need to recognise unconscious bias and develop the ability to put personal views aside when dealing with workplace issues.

This workshop was a great tool for developing people based management skills, it would be great to see it appear again for more to be able to take part and benefit from the insight it gives from all angles.

**Cath Melvin
Wellbeing Co-ordinator
Caroline Waters Communications**

Remember...

On the project we have...
If you need to talk to someone or want information. Look out for logos on email signatures, signs on desks, wall posters or contact: Catherine.Melvin@bepdt.com
Or if you prefer an independent body:



August wellbeing theme is:

Domestic Abuse

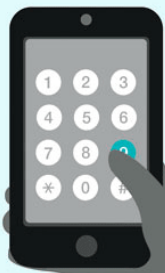
For more see the monthly wellbeing pack or notice boards near you.



Make Yourself Heard

In danger, need the police, but can't speak?

1 Dial
999



2 Listen to the questions from the 999 operator



3 Respond by coughing or tapping the handset if you can



4 If prompted, press **55**
This lets the 999 call operator know it's a genuine emergency and you'll be put through to the police.



#YouAreNotAlone

Supported by

women's aid
until women & children are safe



In the next issue:

Supply chain -What is it like working with BEP?

Stakeholder Management- How is it going?

Social Impact - What's new?

In the meantime:

Feedback and positive comment always welcome,

send to: comms@bepdt.com



BEP PROJECT SAFETY DASHBOARD

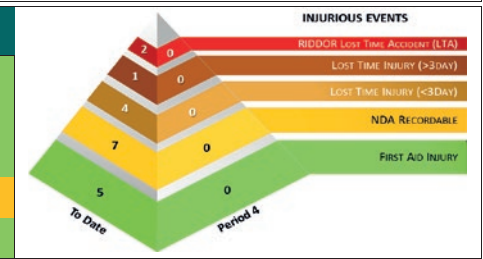


PERIOD 4 (2021)

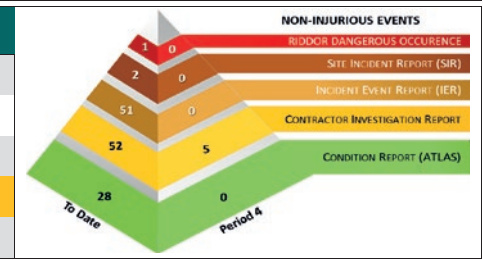
* NOTE: denotes project KPI

PROJECT HOURS	PERIOD TOTAL		ROLLING TOTAL (12 month)		TOTAL WITHOUT LTI
BEPJV (inc. Subcontractors)	99,118		1,081,965		2,299,762

INJURIOUS EVENTS	PROJECT TOTAL	YTD	PERIOD TOTAL	ROLLING RATES
* RIDDOR	2	0	0	0.000
* LTI (>3days)	1	0	0	0.000
* LTI (<3days)	4	0	0	0.000
* NDA Recordable (>First Aid), Restricted Workday)	7	1	0	0.203
First Aid	5	0	0	0.000



NON-INJURIOUS EVENTS	PROJECT TOTAL	YTD	PERIOD TOTAL
RIDDOR Dangerous Occurrence	1	0	0
Site Incident Report (SIR)	2	0	0
Incident Event Report (IER)	51	7	0
Contractor Investigation	47	12	5
Condition Report	28	12	0

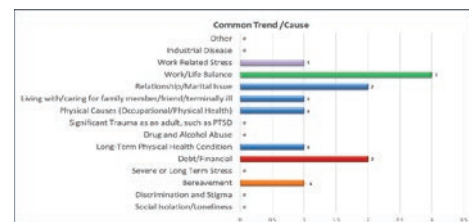


MONITORING & REVIEW	TARGET	ACHIEVED
*Safety Observation Reports	1/1000hrs (97)	116
*Project Management Tours	>90% (20)	60% (12)
*Client Themed Audits	>170 (Risk Assessment)	186
Client Weekly Inspection	>170	187
Supervisor Weekly Inspections	>90% (64)	91% (58)
Supervisor Observations	2/week (116)	32
Operator Observations	1/1000hrs (15)	22

KPI INVESTIGATION ACTION CLOSE OUT	Total ATLAS Actions Open	ATLAS Actions Overdue *
*Timely close out of actions arising from Health & Safety Investigations	0	0

INVESTIGATION SUMMARY		
Date	Summary Description	Investigation Status
19/05/2021	MEWP Punctured Plywood – A MEWP being manoeuvred into the WTC over a small (wooden) ramp when the front left wheel went through the plywood sheeting.	Investigation Completed (to be taken to Peer Review 28/07/21)
24/06/2021	Loose Block – Lintel above doorway removed with remaining blockwork supported with a Temporary Works arrangement. During the transferring activities, an operative noticed one of the blocks immediately above the opening protruding below the other blocks.	Investigation Ongoing (report prepared and under review)
01/07/2021	Push Around Vertical MEWP – PAV manual controls used to operate machine (base of the PAV) to allow quality Inspector (stood within the PAV) to access pipework. Concerns raised regarding the adequacy of the control measures being adopted; operation of the PAV, exclusion zone arrangements.	Investigation Ongoing (report prepared and under review)
05/07/2021	60T Auxiliary Hoist – On receipt of the 60T auxiliary hoist at the BEP site, it was observed the load had moved on its timber supports.	Investigation Ongoing
08/07/2021	MEWP Fire Escape – MEWP parked on top of 415v cable behind compressor house obstructing fire escape.	Investigation Ongoing (report prepared and under review)
19/07/2021	Gin Wheels – 2no gin wheels in use on the project that meet the SL standard, but not the BEP enhanced standard.	Investigation Ongoing
19/07/2021	Valla GF100 (Pick and Carry Crane) –Thorough examination completed with no defects identified (16/07/21). 3 rd Party Training provider noted defects during pre-use inspection and subsequently condemned its use.	Investigation Ongoing

HEALTH & WELLBEING TRENDS	MHFA Interactions
Work/Life Balance	3
Relationship/Marital Issues	2
Debt/Financial	2



Contact

Email: comms@bepdt.com | Tel: 01946 55xxxx | Mob: 07860 833 188