

A regular update on DSA projects and people

Supplier eases the burden of mapping underground cables

Employing a DSA supply chain company has enabled Sellafield Ltd to save hundreds of thousands of pounds on the onerous task of collating comprehensive information on buried cables.

The issue came to a head after an incident in which a project carried out excavation work over live, low-voltage cables which were not identified on the excavation permit.

This highlighted the fact that maps of the Sellafield site lacked any information about buried cable feeds from Level One distribution boards to external buildings.

As there is a requirement under the Electricity Safety, Quality and Continuity Regulations to provide accurate information on buried services, a scope of work was created to provide the Sellafield maps team with a list of drawings and CAD files relating to the presence of underground cables. This involved checking through each of the protection single-line diagrams to identify any 400V feeds to external buildings and then searching a database to identify any cable routes to that building.

The task required identification of substations with external feeds, a trawl of CIMAGE to identify the cable routing drawings, and then providing the computer-aided design files to the maps team. Few drawings were expected to show the required information and the only other way to get the information gap would be to physically survey all 611 external feeds from 80 LV sub stations.

However, thanks to its familiarity with Sellafield's Drawing Registry, Ulverston-based engineering consultancy FETL took just 75 person hours to identify and deliver 278 drawings that confirmed 521 cable routes.

This had the effect of reducing Sellafield Ltd's survey requirements by more than 85%. By removing such a large proportion of the potential survey work from scope, Sellafield Ltd was able to avoid costs of more than £657,000. There has also been a saving of at least six months on the project schedule.

This is only one example of how FETL has saved money for Sellafield Ltd through applying the tacit knowledge gained from its drawing office role.

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Site maps previously lacked information on cables

Financial update

At end of period 4

DSA spend during 2023/24	£56.4m
Cashable benefits	£114,291
Non-cashable benefits	£11,283
Schedule benefits	10.3 months

Health and safety

Hours without a lost-time incident

AXIOM	9,027,034
Progressive	7,268,349
Total	16,295,383

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The DSA now has a home on the NDA Hub. It can be found here: <https://ecosystem.org.uk/groups/dsa-hub-sl>, but to get access, please email rachael.ellis@cavendishnuclear.com who will invite you.

FETL designs paperless process for PDFO drawing updates

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Historically, drawing update tasks completed by FETL were issued to Sellafield Ltd in paper format and physically delivered to the Plant Facing Design Office (PFDO). As with any paper-based system, this fell foul of common issues such as delivery delay, incorrect filing and delays in returning signed copies that meant that in some cases re-work was required.

FETL and the Sellafield customer identified the need to develop a better approach that allowed greater surety of delivery and a process for gaining electronic sign off.

FETL worked with its Sellafield Ltd clients in the PFDO to make the process paperless by creating PDFs of the completed tasks and a folder structure to organise the job packs in a way that conforms to internal governance and business processes. PFDO and other parties now receive emails about each completed pack and the actions required of them.

Since this approach was implemented in March 2020, drawing and job pack approval is normally obtained within hours of the completed task being issued to Sellafield Ltd.

FETL also stepped up to the plate during COVID, when Sellafield Ltd instructed many people to work from home, leaving them unable to access some information systems remotely.

At PDFO's request, FETL took on a vital role, using

its knowledge of the Cimage system to help DSA companies to identify drawings and retrieve information.

This service enabled projects to continue to work during lockdown.

Between March and October 2020, FETL completed 434 assistance tasks for other companies, ensuring efficient information flows and enabling projects to maintain progress across multiple frameworks.



FETL's headquarters in Ulverston

DSA Supplier Forum in Cumbria to focus on collaboration

The next DSA Supplier Forum takes place in West Cumbria on Tuesday, October 31.

Held once every six months, the Forum is a chance for supply chain companies to hear from and network with DSA partners – AXIOM, the Progressive Alliance and Sellafield Ltd – and glean more about forthcoming opportunities.

On the agenda this time will be:

- DSA and Sellafield Ltd updates
- DSA programme update and forward look ahead from the business managers
- Presentations exploring the theme of collaboration and what makes it a success at the DSA
- The importance of Learning from Experience

and the Delivering Benefits process

- Presentations from small and medium-sized enterprises on the services they offer
- Apprenticeship support

Companies that would like to attend the Forum should email procurement@axiomjv.com to request an invitation.

Allan Clark, Supply Chain Commercial Manager from AXIOM, said: "We are looking forward to welcoming and meeting colleagues from relevant suppliers.

"The DSA is committed to making a positive socio-economic impact in the areas where we operate and our collaboration with suppliers is key to achieving this."

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DSA shortlisted in Institute for Collaborative Working awards

The DSA has been shortlisted in the Annual Collaborative Working Awards 2023.

The awards are run by the Institute for Collaborative Working (ICW), whose mission is to demonstrate the vital role structured collaborative working plays in delivering key outcomes. It also runs a Nuclear Sector Forum, which was set up in partnership with Sellafeld Ltd.

The DSA successfully reached the awards shortlist after a presentation to the ICW in London by Paul Adams, Mike Houghton and Richard Jones.

We will find out whether we have won at an awards evening at the House of Lords on November 22. Entrants do not have to apply for a specific category, but the ones we are most likely to be considered for are Public Sector, Supply Chain, Innovation or Collaborative Leadership. Paul, Mike and Richard described the structure and aims of the DSA and explained how collaboration has been so crucial to its success, in providing Sellafeld Ltd with secure access to more than 1,000 external specialists who have in many cases been integrated into teams alongside 600 Sellafeld Ltd staff members.

Collaboration has helped to build transparency and trust, creating an environment in which all



trust, creating an environment in which all organisations focus on the same goal.

The presentation also stressed how the 'One Team' philosophy extends across the DSA and into the supply chain, where Tier 3 suppliers and SMEs have become an integral part of delivery teams, taking project management roles and sharing resources.

DSA Safety Conference is virtual and face-to-face this year

The 2023 DSA Safety Conference takes place from Monday to Wednesday, November 6-8.

The conference will be a blend of virtual and face-to-face sessions covering a wide range of topics such as safety in design, early careers, human performance and more.

Open to AXIOM, Progressive, Sellafeld Ltd and the supply chain, it comprises virtual sessions to attend online on Monday and Wednesday, while on Tuesday there will be face-to-face conference sessions at the Engine Rooms, Birchwood Park, where refreshments will be provided.

Look out for the calendar invitations for face-to-face sessions which will be circulated shortly – invitations for virtual sessions will follow.

Please join us to take a deeper look at safety processes and innovations that support us in delivering continued excellence and ensuring that our people go home safe at the end of each

working day. For more information about the conference, please contact corey.bowen@jacobs.com



Processes and innovations that ensure we stay safe are a key focus for DSA Safety Conference

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Dan takes over from Samir as AXIOM SMPrO Business Manager

Dan Hickson has taken over from Samir Khadr as AXIOM SMPrO Business Manager.

Dan was previously SMPrO DSA Improvements Manager and will continue to cover that role until recruitment of his successor has been completed.

As Improvements Manager, Dan acted as integrator, influencer, and leader of the improvements programme, along with a tactical focus on specific improvement workstreams.

He also deputised for the AXIOM SMPrO Business Manager on various platforms, ensuring continuous running of the business and being first point of contact for the partner organisations.

Dan said: "My vision for the role is to build on a successful platform to date by delivering on our promises, maintaining a strong health and safety culture, instilling resilience, and ensuring solutions for the customer are at the forefront of our business."

Samir, who is returning to Assystem to direct the company's decommissioning and waste management activities in the UK, said: "Thanks to



Dan Hickson

everyone for their support during my time in post, which has been one of my most rewarding and enjoyable to date. I'm utterly proud to have been part of such a high performing, integrated team."

Down to earth approach is simpler way to avoid ignition risk

An integrated DSA team has devised a simplified solution for removing packages of special nuclear material from their containment vessels to enable onward processing or storage.

The SNM packages, which have been transferred from Dounreay, can generate hydrogen and if the package is not gas-tight, hydrogen could leak. On opening the vessel, a flammable atmosphere could form which could ignite if exposed to an electric charge.

This risk has previously been managed by the installation of static mats and this approach was carried forward into the Containment Vessel Release Tool (CVRT) project, which was set up to find a way to open the vessels safely.

But DSA engineers came up with an alternative approach to dispense with the mats. They realised that the wrench used to open the vessel lids will be earthed, as it is connected to the equipment frame via a cable which in turn is connected to the earth bar to which the vessels are also earthed.

Therefore, the act of picking up the wrench will earth the operators and disperse any charge.

The DSA team also realized that the mats would

only be effective if the operators wore ankle straps attached to the sole of their work boots. This allows any charge on the operator to be dispersed around the rubber sole of the work boot.

However, if the operator forgets to fit the strap, the anti-static mat will not work and, given the contamination classification of the surrounding areas and the fact that operators would have to touch the sole of their shoes to fit the straps, it is questionable whether protection provided by the straps was proportionate to the risk.

This change saved the £600 cost of purchasing and installing the mats and also simplified compliance with DSEAR 2002.

"This shows the value of challenging the equipment requirements from previous assessments and assessing their applicability to the project in hand," said Site Management Project Office Process Engineer Chris Monks. "Doing without the mats also brought about reductions in material use, transport-related greenhouse gas emissions, installation risk and dose, and it means there will be less low-level waste at the decommissioning stage."

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Store 17 retrievals under way after ONR gives the green light

Packages of special nuclear material classed as “higher risk” are being removed for the first time from one of Sellafield’s most problematic storage facilities.

The first can was retrieved from Store 17 on October 3, putting the project on track to retire a Level 1 issue.

Removals began after a site visit and inspection by the Office for Nuclear Regulation, including discussions with designers and operators, which resulted in the issuing of a licence instrument allowing operations to commence.

At the current rate of retrieval, the total inventory of several hundred cans will be transferred to more appropriate long-term storage within 12 months.

Frank Gladman, Area Engineering Manager, who is responsible for the multi-disciplinary design work on the project, said: “Reaching this point is a massive achievement, which is recognised by senior stakeholders and the regulator.

“We have a process that is working well and, importantly, the operators feel they own the process and have confidence in it.”

Operator training was carried out at a 50m² timber mock-up of Store 17 installed at the Jacobs Engineering and Technology Centre on the Beckermat Industrial Estate.

An integrated DSA team, drawn from Sellafield Ltd and AXIOM, designed a system for placing the cans in overpacks using an 80-litre containment box with glove ports, mounted on a portable frame and rail system, which can be accurately

positioned adjacent to any one of 161 storage channels, stacked in seven vertical layers. Because of the potential hydrogen risk, nitrogen is pumped into the box and the channels to create an inert environment for the repackaging work.

This in turn creates an asphyxiation risk for operators, so they need to wear protective masks.

Frank said the rig had been “worth its weight in gold” in terms of its contribution to the success of the project.

He added: “There is always a balance to be struck between ensuring risks are mitigated to ALARP and the need to engineer the most pragmatic solution possible.

“This project has provided us with a lot of learning on this subject.”

How’s the DSA doing?

Work to supply chain	Work to SMEs
35%	17%
Hours in education	Customer feedback score
202	100%

Early careers teams challenged to analyse past safety blunders

The DSA is challenging its early careers staff members to investigate and present on safety events from the past, with a £150 prize for the winners.

Teams of up to five people, from at least three different disciplines and two partner organisations, must pick one incident to look at, either from the nuclear sector or wider industry.

Options include incidents at Sellafield and Dounreay and the Flixborough disaster..

“This is an opportunity to delve into the past, understand why things go wrong and learn some important lessons from past mistakes,” said AXIOM

Health and Safety Lead Dave Mason.

“This challenge will test the ability to work with others, carry out research, compile findings and present them to a technical audience, which are all important skills for the nuclear industry’s future talent.”

The exercise will also count towards each individual’s professional development record. There will also be a prize of £150 in vouchers for the best presentation at the DSA Safety Conference in the week commencing November 6. For more details, please contact caroline.jones2@cavendishnuclear.com

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