

A regular update on DSA projects and people

Design team is bang on time with crucial package for SCP

The SIXEP Continuity Plant’s mechanical design team has made a crucial contribution to keeping the project on track.

The DSA integrated team worked extremely hard in recent months to meet challenging target dates for delivery of agreed design information for the process cabinets, which are vital components for plant operations and maintenance.

The hard work paid off as they hit their target to complete the first tranche of design for the cabinets package of work, enabling the Programme and Project Partners to go out to tender as planned in May.

The cabinets include the Positive Breach Cabinet (pictured), MA Sample Cabinet & pH Monitor Cabinet, which all provide operator interfaces for managing and controlling plant operations. Taking LFE from SIXEP and applying latest best practice, the cabinets have been designed to optimise the operator interfaces and minimise both conventional and radiological risks to operators and maintainers.

The three cabinet work packs contain more than 200 drawings and three complex Inventor 3D models.

The timely delivery of the cabinet designs was critical to support procurement activities and keep up with the project lifecycle schedule.

Helen Price, Design Project Manager, said: “A massive thank you is due to everyone in the team for all their efforts and for maintaining their

level of focus during these lockdown periods.

The detailed design of these Cabinets has been a significant challenge and the team members have performed amazingly throughout.”

SCP will provide a back-up to the existing SIXEP facility and is fundamental to protecting and enabling the Sellafield site’s mission of high hazard reduction, post operational clean out and broader decommissioning.



The SCP Positive Breach Cabinet

Financial update

At end of period 2

DSA spend during 2021/22	£14.7m
Cashable benefits	Not available
Non-cashable benefits	£970,000
Schedule benefits	9 months

Health and safety

Hours without a lost-time incident

AXIOM	7,236,221
Progressive	6,092,387
Total	13,328,608

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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 janine.bell@sellafieldsites.com who will invite you. Lots of useful information will be uploaded in the next few weeks.

My Perspective – Andy van Schaick

Andy Van Schaick has been in his current role as Commercial Category Manager – Studies, Technical and Design Engineering, for three years.

During that time the DSA has been regarded as proven and successful as a way for Sellafield Ltd to procure design engineering and safety case support. But it has also been challenged to make clear its contribution towards better project outcomes.

Andy says: “We have looked at the experience of other big UK infrastructure clients and we know we are doing some pretty good stuff, but there are areas where we need to do better to align to industry good practice. The designer working in an integrated way with the constructor, driving true social impact and beginning the journey on implementing carbon reduction improvements are great examples of that.

In particular, the Nichols Review identified that there was scope to drive improvements by using more challenging commercial models that would incentivise the DSA partners to deliver more effectively for projects.

“The Nichols report concluded that the DSA was performing well but that its performance would be optimised if there was continuous improvement over the next few years. Between now and 2027 we have six years to make all of this happen and to build on the foundations of the great work done to date.”

“A lot of the improvements we have been looking to make have been included in the Business Case for the third tranche of the DSA after 2022. I am really proud of the work that has been done to date. We need to keep up the momentum and drive continuous improvement by delivering the commitments the DSA has made in securing the third tranche of the contract”.

“There was a big increase in the use of incentives in the second five year tranche of the contract. In the third tranche there needs to be a further step change which will be challenging for everyone.

“We are looking for project teams to really tailor DSA incentive models to meet their specific project need. The DSA contract provides great flexibility to adopting a breadth of incentive models, so project teams are encouraged to be creative with these to drive the right outcomes”.



Andy also recognises how an improving demand pipeline can better support a number of the optimisation plan areas.

“By having improved visibility of demand into the medium term this allows us to put in place strategies to deliver that demand.

“Firstly, we can allow the DSA Partners to engage Sellafield Ltd much earlier in project delivery, perhaps even prior to project commencement.

“Secondly, it allows us to plan our engagement with the DSA Partners and the broader supply chain to align to the government’s small and medium-sized business agenda, there is a great opportunity for Sellafield Ltd to engage SMEs to a greater extent rather than engaging large organisations as sub-contractors. This allows the DSA to leave a sustainable legacy for the future.

“Thirdly, it allows us to reduce the management overhead in the management of the DSA. Sellafield Ltd engages the DSA in a very transactional manner. If there is an opportunity to bundle scope, this reduces the transactional effort to engage the DSA as well as other management activity. This can then be reflected back into the cost base of Sellafield Ltd and the DSA Partners.”

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Progressive engineers brush up on their CDM knowledge

Six engineers from Progressive recently undertook a Construction, Design and Management (CDM) course for principal designers and designers. The course was delivered through the Construction Industry Training Board on behalf of the University of Cumbria.

The intention was for participants to get an overview of the current CDM regulations and learn about the duties they impose on designers during construction projects. They also got an insight into requirements for the Health and Safety File and Construction Phase Plan, preparation of pre-construction information and the client brief, and the requirements for notification of projects as well as duty holder responsibilities and appointments. The course was a great refresher for those with previous CDM training but also provided good awareness and understanding for CDM newbies. Participant Ben Whiteley, Cavendish Nuclear Principal Mechanical Engineer, said 'The course was very informative and the trainer used his extensive career experience at all levels to good effect. "We had a mixture of attendees on the course,

from CDM first timers, to those who have refreshed their CDM training on a number of occasions but everyone, regardless of experience, found the training valuable and it was pitched in such a way that the information was relevant to all the candidates.

"This was the first time that most of us had undertaken a significant training course remotely, using Teams, but everything worked well and the structure of the training and testing had been well thought out to suit the unusual circumstances. The Cavendish engineering team is looking forward to applying our learning on the many tasks and projects we are delivering for our Sellafield customers."

All attendees passed the course with flying colours and this opportunity highlights the ongoing contribution that Progressive and the DSA as a whole make to Continuous Professional Development. Attendees are now looking forward to applying the knowledge gained from the course into their work on the DSA, in particular Remediation.

SAFE BY DESIGN – ASPHYXIATION HAZARDS

WHAT?

Asphyxiation is the deprivation of oxygen to the human body which can cause unconsciousness and death. Asphyxiation hazards arise when oxygen is displaced from the air that we breathe.

Anywhere using or generating gases or vapours that can displace oxygen has the potential to be an asphyxiation hazard. They are especially dangerous in poorly ventilated or congested areas.

IT CAN HAPPEN HERE

Asphyxiation is insidious because those affected are typically not aware that they are in danger. Low concentrations of oxygen in the air lead progressively from impaired judgement to loss of consciousness to **death**. Asphyxiation strikes **without warning** and at low concentrations of oxygen can lead to death in **minutes**.

See CSB video on an event that happened in the USA. NOTE: The article contains a YouTube link [4]

REGULATIONS & GUIDANCE

Asphyxiants are covered under the umbrella **Health & Safety at Work Act 1974** and there is a legal duty on Sellafield Ltd to demonstrate risks to health are managed to ALARP.

Guidance for Designers is available [1]
See also SLSP 2.17.13 [2]

Confined Spaces are covered in specific Legislation and SL has company standards

WHAT CAN DESIGNERS DO?

Use the Engineering Guidance [1].

YOU MUST Follow the Hierarchy of Controls

Eliminate – Remove the asphyxiant entirely

Reduce – Limit volumes of gas stored

Move equipment outside to use natural ventilation

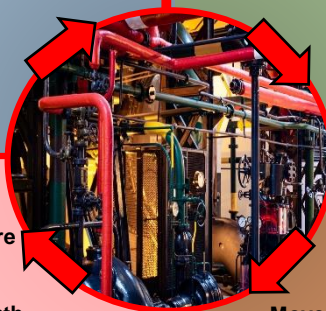
Engineering Controls – Improve Forced Ventilation

Administrative Controls – Signage, Marking, Training

PPE – Such as personal oxygen monitors **as a last resort**

Demonstrate ALARP

Identify Confined Spaces in particular



Links

- [1] - [EG 1 4102 1 - Asphyxiation Management Guidance](#)
- [2] - [SLSP 2.17.13 - Chemotoxic Hazards](#)
- [3] - [SLP 2.04.21 - Managing Confined Spaces](#)
- [4] - [US Chemical Safety Board - N2 Asphyxiation](#)

Key Contacts & Information

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Supply chain will need to adapt to a sustainable future

Sustainability – both in terms of climate change and social impact – is becoming more and more important in the way that Sellafield Ltd procures goods and services.

The business is pledging to make sustainable procurement and circular economy central to its operations and supply value chain. This means looking very closely at the impact on carbon emissions, energy usage, materials and waste. Instead of purchase price, whole life costing will be the preferred basis for procurement decisions.

Adil Sardardeen, Sustainability Manager – Intelligent Client, for the Programme and Project Partners, says: “This will entail a huge change in thinking on the part of the supply chain. Sellafield Ltd recognises that it needs to support suppliers and encourage them to be partners in creating a sustainable value chain.”

In its procurement process, PPP already places a 10% weighting for social impact on tender evaluation, with commitments delivered through key performance indicators. In 2021/22, 90% of all contracts worth more than £100,000, will have KPIs covering social impact.

Supply chain companies will need to consider how they can contribute in the following areas:

- Performance
 - Resilient, inclusive and local economic growth
 - Innovative nuclear programme, projects and

improvements create new market opportunities

- People
 - Activities protect the health, safety and wellbeing of current and future generations
 - Inspiring skills, education and personal development activities improve access to sustainable incomes
 - Activities reduce inequalities, enhance community assets and address needs
- Planet
 - Accelerating Climate resilience and zero carbon transition within planning, design and Operations
 - Sustainable procurement and circular economy throughout our operations and supply value chain
 - Environmental remediation restoring and enhancing the environment
- Partnership
 - Collective impact of stakeholders, partnership and supply chain working to create shared value

The table below sets out the state of play on sustainable procurement & circular economy outcome within PPP. Now means in 2021-23; soon and later mean before or after 2024. For more information, please contact Adil Sardardeen (adil.sardardeen@sellafieldsites.com)

Now	Soon	Later
<p>PROCUREMENT</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>Social Impact</p> <ul style="list-style-type: none"> – PPN 06/20 – ITT 10% SI Weighting – SI Evaluation via SVP </div> <p>SUPPLY CHAIN</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>Engagement</p> <ul style="list-style-type: none"> – Supply chain strategy – Multi Project Procurements (MPP) – SI expectations </div> <p>CIRCULAR ECONOMY</p> <div style="border: 1px dashed black; padding: 5px;"> <p>Waste and Resources</p> <ul style="list-style-type: none"> – Waste and Resource Strategy – Design support – Reuse </div>	<p>PROCUREMENT</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>Sustainability</p> <ul style="list-style-type: none"> – Sustainable Procurement Strategy and Charter – Whole life costing tools – Sustainability evaluation – Training programme </div> <p>SUPPLY CHAIN</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>Development</p> <ul style="list-style-type: none"> – Sustainability Supply Chain School – Sustainability engagement plan – Sustainability KPIs </div> <p>CIRCULAR ECONOMY</p> <div style="border: 1px dashed black; padding: 5px;"> <p>Resource Efficiency</p> <ul style="list-style-type: none"> – Product standards and specifications – Circular Economy Model </div>	<p>PROCUREMENT</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>ISO 20400</p> <ul style="list-style-type: none"> – Embed ISO 20400 – Life Cycle Assessment tools – Supplier benchmarking – Independent audit reports – Training toolkit/Awards </div> <p>SUPPLY CHAIN</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>Partnering</p> <ul style="list-style-type: none"> – Sustainable supplier development programme – Performance incentivisation – Industry leadership </div> <p>CIRCULAR ECONOMY</p> <div style="border: 1px dashed black; padding: 5px;"> <p>Value Streams</p> <ul style="list-style-type: none"> – International Centre for Nuclear Circular Economy Engineering </div>

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Incentivisation arrangements – find out what’s in it for you

Following the Nichols Review, the DSA has made a business case commitment to put in place more challenging commercial models aligned to the needs of projects. There are already some good examples of how these new incentive mechanisms are being implemented:

Site Management – Early completion bonus applied by the Site Management Project Office for Decommissioning Encapsulation Plant Project. Sellafield Ltd is providing resources for the duration of the project, which is built into the price. If the project successfully completes ahead of schedule, the DSA Partner (AXIOM), will receive a share of the cost saving of the Sellafield Ltd resources being demobilised and allocated to other projects.

Technical – Instead of using the four template DSA key performance indicators (KPIs), the Risk Reduction in Box Operations project has amended two of the template KPIs to use more targeted project specific KPIs that support project outcomes. The project has tailored the health and safety standard KPI but have focused it more on agreeing the health and safety plan for the trial work for the project. The project has also used a KPI around the DSA Partner (Cavendish Nuclear) using at least two apprentices/graduates to reflect the fact that the aim is to develop technology to be applied in the long term.

Design Capability - Central Engineering Task Order



Alliance Designed Delivery

moved away from standard KPIs to scope outcome-based KPIs. The Task Order for Human Factors now has a KPI on completion of services rather than release of KPI incentive fee during delivery of services.

Andrew van Schaick, Commercial Category Manager, said: “We have started putting more stretching commercial arrangements in place including the trials for Alliance Designed Delivery. We need to continue to drive this so it becomes the standard.

“I encourage the teams from around the business using the DSA to look into the benefits of using incentive mechanisms. For more information, it is best to speak to the commercial representative: Rebecca Buchanan (Cavendish Nuclear), Rosemary Gott (AXIOM) Ian Sutcliffe (AECOM) Martin Nolan and Dan Nolan (Sellafield Ltd).”

Boost for Reboot initiative

Copeland Council’s Reboot initiative, which is receiving project management support from the DSA, has had a major boost.

The government’s Towns Fund has offered £22.5 million to be spent on creating new jobs, improving transport links, and revamping cultural and tourist attractions in Cleator Moor.

The council has also been invited to bid for up to £25 million of Towns Fund money for regeneration projects in Millom.

Philip Davies and Keenan Mumba, from the DSA partners, helped draft the bids for funding. Cleator Moor also received accelerated funding last year for investment in capital projects that would have an immediate impact and help places “build back better” in the wake of COVID-19.

How’s the DSA doing?

Work to supply chain	Work to SMEs
27%	9%
Hours in education	Customer feedback score
83	98%

(Figures for up to end of Period 2, 2021/22)

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