

Springfields Site Stakeholder Group

Site Reports – 2022 Mid-Year data to June

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Business Report

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1 Environmental, Health, Safety & Quality – Highlights

COVID – The Site has successfully managed the main impacts of the pandemic, adopting and aligning Government Policy finally transitioning to a living with COVID philosophy during 2022. All site arrangements were deployed via the COVID Board working in TU partnership to manage business and health risks. HR facilitated the adoption of employee working from home arrangements, many of which now underpin a broader flexible working plan for employees. Springfields continues to evaluate COVID risks and business continuity planning, using LFE developed during the crisis.

Fire & Rescue Service – of note in December 2021 the F&R arrangements transitioned from an internal service to a procured service provided by MITIE. This change consolidated activities with MITIE for Security, Emergency Control Operators and F&R providing an overall increase in resilience and opportunity to reach-back to other resource located in NW England. This change is effective and continues to be monitored during the post implementation phase.

Clifton Marsh Waste route – of note due to changes in Legislation and requirements for Nuclear Liability Insurance, SUEZ Clifton Marsh is not currently accepting low level radioactive waste. Springfields has agreed temporary arrangements since January 2022 and is working through Commercial negotiations, options and alternative routes to re-open a route for VLLW/LLW. This may include use of other licensed LLW facilities. Target date is to re-establish a route by end of 2022.

Independent Nuclear Assurance – INA – the site is increasing focus and resource associated with INA to increase internal challenge across normal operations, change plans, new projects and discrete arrangements. Reports will be taken at the SFL Board.

The Safety Annual Review SAR for 2021 – this review was concluded internally and shared with the ONR and EA who were aligned with Management view of overall safety (EHS) performance. From the 14 topic areas reviewed for 2021, 12 were identified as Satisfactory or Good with 2 areas highlighted as Unsatisfactory;

- License Condition 36 Organisational Capability (MoC or Management of Change)
- Management Systems document review compliance

The **MOC** gap was created by the 2021 voluntary severance change plan leading to a high volume of change actions not being completed in a timely manner. The review confirmed that the majority of incomplete actions were administrative and not safety related.

Springfields will clarify the safety specific content in the review process to avoid misrepresentation or unclear safety status on key metrics.

The **Management Systems** compliance target is 100% of all documents to be reviewed within the set date. The metric data includes all documents not just safety. For assurance there was no adverse trend on safety specific documents and in future this metric will confirm specific safety document status.

2.1 Oxide Operations

Advanced Gas-Cooled Reactor Fuel - The manufacture of AGR fuel and deliveries to EDF Energy have been achieved consistently throughout the year. Fuel stocks are healthy, and pin and powder in process stocks have returned to desired levels following depletion of stock in 2021. Work has also begun in 2022 on new work for EDFE regarding End of Generation activities, including the manufacture of Empty Stringer Elements, and the recovery of pins from surplus fuel previously manufactured for Dungeness. EDFE has closed 3 Reactor stations (Dungeness, Hinkley Point and Hunterston) and 4 remain open (Heysham 1&2, Torness, and Hartlepool).

Light Water Reactor Fuel - The LWR manufacturing facility has successfully achieved all deliveries to EDF SA in France. Some deliveries in year were delayed, in agreement with the customer, as a result of issues with transport arising from the P&O ferries resourcing issues earlier this year. These problems have now been mitigated and delivery routes re-established. The facility continues to manufacture LWR fuel for both 900 and 1300 MW power stations, running with both single and two shift rates in year depending on demand. The plant remains available for increased capacity moving forward and continues to demonstrate high levels of efficiencies and quality performance. **SFL received Category A rating from EDFSA** (its highest supplier rating) for 2021 production year for the first time, establishing itself as Westinghouse's highest rated facility with EDF.

High Throughput Integrated Dry Route. The HT-IDR technology for UF₆ re-conversion is fully operational on all three process streams. Resource constraints in 2021 have now been resolved with flexible working arrangements and increased training in the area mitigating this loss.

Export powder packing continues with high levels of productivity consistently demonstrated. Powder deliveries for customers in Korea and Spain, along with granulation customer in Japan have continued in 2022. Packing of de-fabricated fuel from a Japanese customer has also started in 2022.

2.2 Uranium Recovery

- Continues to successfully recover Uranium through Wet & Dry recovery processes to plan, a significant contribution to the fuel cycle and ultimately UK Power Generation. Recovery of de-fabricated fuel pellets back to U₃O₈ has commenced this year, utilising

the surplus capacity on the dry route furnaces to provide an opportunity to recover Uranium back into the fuel cycle in line with circular economy principles.

- Continues to support the NDA's mission to Clean up the UK's earliest nuclear sites, offering unique solutions which process historic Uranium residues.
- The processing of legacy NDA extract filters continues, with the production rate reduced to manage discharges and impacts on material carry over into the effluent system and subsequently wet route operations. The Nitric Acid Wash (NAW) team has been amalgamated into a collective "wash plants" team that works between NAW, cylinder wash and metal decontamination, optimising resources in line with value stream mapped production facilities.
- There are a number of facilities across the NDA estate throughout the UK with similar waste streams, Springfields is in the early stages of providing solutions which could divert metal waste streams away from disposal to recycle.

3. Decommissioning

3.1 Magnox Island

- The scope of this NDA contract includes all aspects of the decommissioning, from de-planting and decontamination through to final demolition of all buildings down to slab level, including legacy buildings A334, A336, A337, A354 & A379.
- Good progress continues to be made on these projects, where Post Operation Clean Out has been completed, and all Uranic materials are removed and the final stages of de-planting are now being progressed.
- Two new facilities were required to enable the final decommissioning programme, including a Nitrogen Generation plant and an Effluent Processing plant. These projects are now operational. This was a key enabling milestone and allows the next steps in the decommissioning programme to continue.
- Over the next year the footprint associated with the Manufacture of Magnox Fuels will be demolished using specialist Contractors (subject to Waste route availability).

3.2 Contaminated Land Management

- The routine sampling and monitoring has continued to be progressed without issue or significant changes recorded.
- Further work is being undertaken to understand any constraints on land use for new developments.

4. Employees and Socio-Economics

- Organisational restructuring 2021/22 – This has continued across quarter 1 of 2022 and resulted in net reduction of 103 Employees from the Voluntary Severance change plan.
- A transformation plan is being developed to ensure the business can navigate the assumed End of AGR Generation decline and the changes required to align to new product opportunities across this decade. Details are being finalized and will follow due process.
- Attrition - Some increase in Employee attrition were noted in 2022. This is partly attributable to a buoyant market for nuclear skills in the UK. Employee attrition remains well below industry norms but continues to be monitored and reviewed. Specific action is taken as required to ensure key roles and obligations are fulfilled.
- The Company and Trade Unions continue to meet in Consultation on the ongoing review of Terms and Conditions and the 2022 Pay Offer. This is giving rise to some workforce concerns, which all parties are working to address.
- Apprentices – the successful Training school and workplace programme continues to provide a key Talent pipeline for SFL and external business. Arrangements for the OFSTED requirements and other obligations continue to be effectively managed by the Apprentice Board. Further information is included in the socio economic report.
- Supervisor Development Training Programme – this is now in progress and the first cohort of attendee successfully completed their training, which supports the Company improvement plans including pursuance of a Shingo Award.
- Springfields and the broader Westinghouse are evaluating a number of approaches to improve communication of the socio-economics associated with site operations. This is important on a number of fronts, but will also underpin a number of new Commercial opportunities that are under review.

5. Commercial Investment Plans and Site Strategy

Springfields has defined a new site strategy to underpin the future of the site and enable us to navigate the EDFE AGR end of generation phase and beyond into 2030's.

Springfields wish to bring the new opportunity details to the attention of the Stakeholder group and are currently navigating a number of commercial sensitivities, alongside the start of formal regulatory and planning authority engagement. As we finalise the stakeholder strategy, and the broader communication plan, a mechanism to update the SSG will be confirmed.

Springfields is aware that some information is in the public domain, and that this has given rise to Freedom of Information requests via the Regulators. In addition to confirming SSG communication, Springfields will review its overall engagement interfaces with the community to ensure it has effective arrangements.

Fuel Manufacturing

- Reprocessed Uranium Fuels and Primary Conversion
- HALEU Fuel
- TRISO Fuel

The introduction of new Fuel products will be critical to the long term viability of the site. The opportunities we are evaluating correspond to future long term customer fuel demands. The current status for these opportunities is to evaluate the commercial viability of providing the products, whilst in parallel defining the required organization capability, skills, resources, suppliers and relevant technology to meet all regulatory requirement.

Nuclear Materials Management

- Uranium Recoveries
- Thermal Treatment
- Metals Recycling

Springfields is reviewing how its unique site can be diversified to provide a service hub, to support national and potentially international commercial opportunities. The current status for these opportunities is at an early stage, where we need to navigate the regulatory framework and technology, to decide on merit how best to develop and present the opportunities.

Advanced Nuclear Technologies

- Medical Isotopes

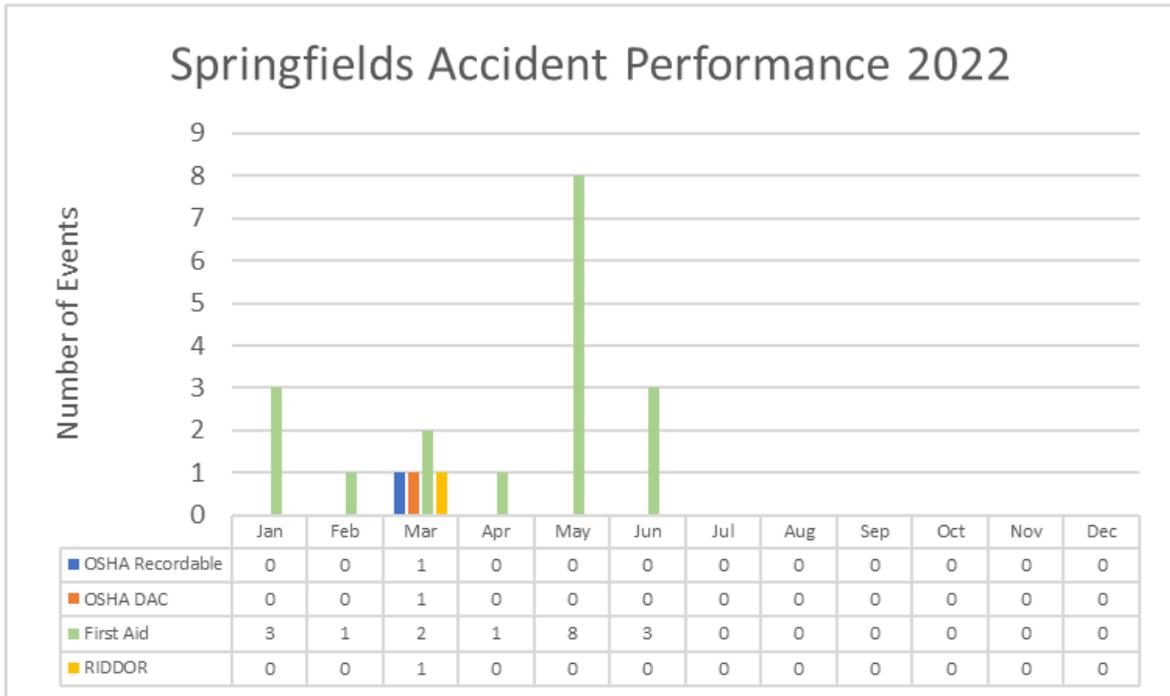
Springfields continue to evaluate how new or emerging technology can be deployed or supported at the site. Some opportunities to-date have not been successful such as medical isotope development, due to customer commercial decisions, but we continue to review the learning from those projects to enable us further explore growth areas.

New opportunities will likely require changes to the site infrastructure arrangements and in parallel these are under review to establish investment and to align government policies for streamlined energy and carbon reduction.

Environment, Health & Safety Report

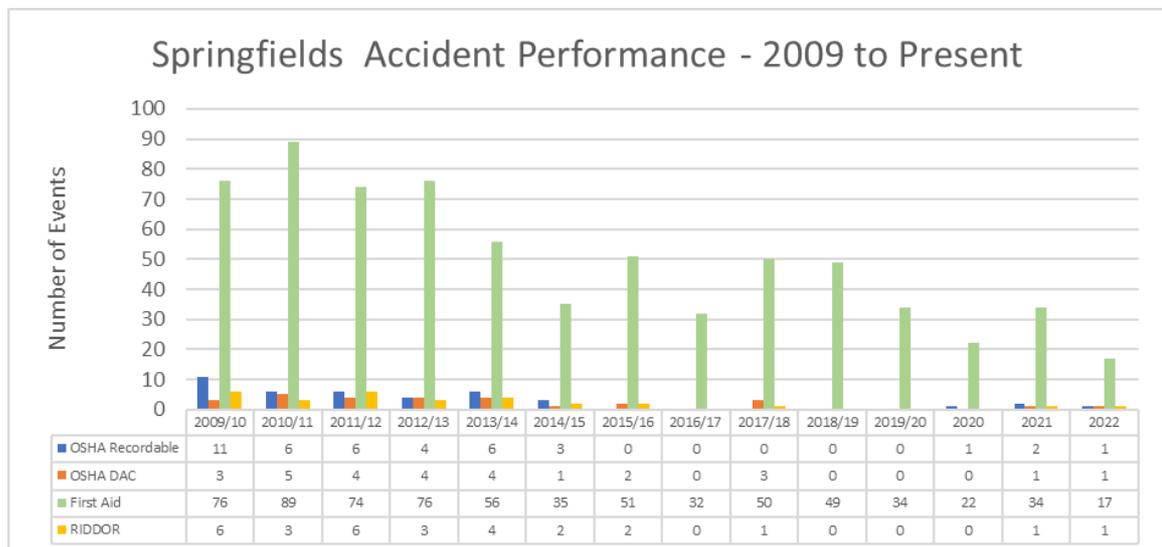
David Eaves
EHS&Q Director

1. Industrial Safety / Process Safety



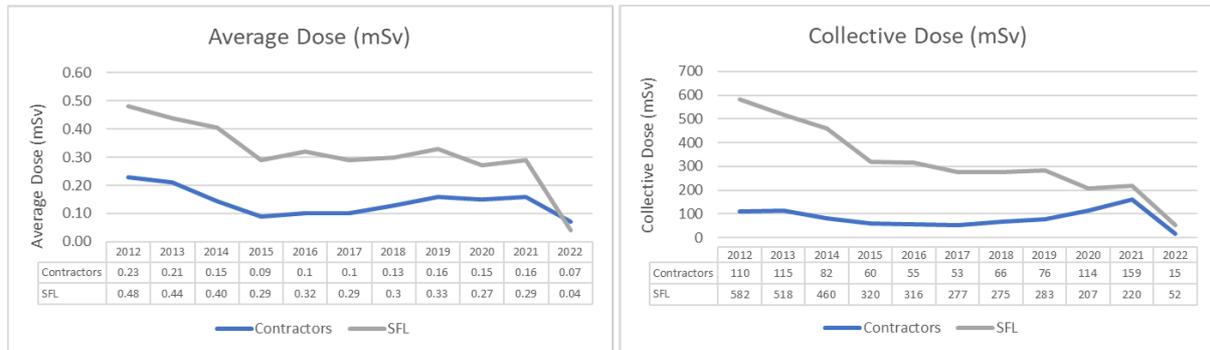
Context to data & how performance will be maintained or improved over the next period

- No Recordable injuries occurred in the last quarter.
- Minor accidents are down by a quarter on this period last year.
- Focus is on the use of observations to reinforce the use of Human Performance tools, and risk assessment, to identify at risk conditions and to stop when unsure.



Radiological / Nuclear Safety

1.1. Assessment of doses has been provided by the external dosimetry service.



Context to data & how performance will be maintained or improved over the next period

Dose data presented is for Q1 2022 only. Q2 2022 doses will be available mid-August.

- As of Q1 2022, the doses presented will relate to External doses only, due to the cessation of formal recording of internal doses.
- Average and Collective doses show a steady decline from previous years.
- Any individual dose at/or approaching 0.50mSv for one quarter or not aligned with the area average is informally investigated to ensure that work practices are ALARP and that badges are stored correctly.
- Currently there are 4 individuals that are predicted to have doses >2mSv for 2022
- *2022 SFL data includes agency supplied workers.

2.2 ONR Regulator Visits & Inspections

There have been a number of visits to the Site since the last report up until June 2022:

03/11/2021	ONR CNSS	Intervention	Security - Projects and Proposals	
18/11/2021	ONR & EA COMAH	Intervention	HF Mechanical Integrity	No formal actions, regulatory advice.
08/12/2021				
17/02/2022	ONR CNSS	Intervention	Security and Transport	
	ONR CNSS	Intervention	Scope TBC	
10/01/2022	ONR Safeguards	Intervention	Accountancy Control Plan Assessment - Site Wide	Actions relating to documented arrangements
12/01/2022	ONR CNSS	Intervention	Compliance inspection transport of radioactive materials	
20/01/2022	ONR CNSS	Intervention	Cyber Security Assessment of FSyP7.5 - Exercising	Actions relating to monitoring and response
23/02/2022	ONR & EA COMAH	Meeting	Preparation for safety report pre- receipt process	2 actions agreed - both complete
21/02/2022	EA	Meeting / walk round	NDA uranic material at SFL	N/A
28/02/2022	ONR RMT / Transport	Meeting	To discuss Type 3575 transport approval extension submission	N/A
07/03/2022	EA	Meeting	NNL Permit	N/A
15/03/2022	ONR Safety	Meeting	ONR site inspector catch up with Site Safety Representatives (MS teams)	N/A
23/03/2022	ONR & EA	Intervention	Licence condition inspections Waste	1 issue against LC34
16/03/2022	ONR CNSS	Intervention	SyAPs FSyP 10 - Emergency Response	2 actions
28/04/2022	ONR CNSS	Meeting	Cyber Security Assessment of FSyP7.5 - Exercising	L3 issues raised in Jan. revised to L4 issues
05/05/2022	ONR & EA COMAH	Meeting	COMAH Safety Report 2023 Pre- receipt Meeting	N/A
10/05/2022	ONR Safeguards	Intervention	Accountancy inspection for UR & Hex storage areas	2 L4 issues
21/06/2022	EA ONR	Meeting	Site Annual Review - includes AROSSE	N/A
22/06/2022	ONR Safety	Intervention	Systems based inspection of A640 Hex Rafts	3 opportunities for improvement

3. Environmental Safety, EA Regulatory Visits & Inspections

The Environment Agency have a regular weekly meeting with both the Site Environment Manager, these meetings have been used to discuss potential growth projects, site transformation and to keep the Agency updated with VST progress. Other people are invited to the meetings regularly for specific agenda items, the EHS&Q Director, Head of Operational Safety and members of the growth team have attended several times.

There have been a number of changes of personnel within the team over the last 6 months and work is being done to strengthen and develop the new team.

The Agency have carried out the following inspections face to face during the first 6 months of 2022:

- On 21st Feb, a meeting and plant visit was held to discuss the NDA owned uranic material held at SFL. No formal actions were captured as this was not a formal intervention.
- On 7th March, EA attended site to have a discussion with SFL OCM's and the NNL compliance manager to discuss the current position regarding the definition of 'operator' in the permit. It was agreed that a further session would be arranged later in the summer to fully understand the operations in NNL and the working relationship with the SFL OCM.
- On 23rd March, EA attended site for the Waste Intervention, focussing on arisings from the Magnox Island decommissioning project. The feedback received for the EA was that they found no non-compliances, but made 3 recommendations and raised one observation for SFL's consideration.

The Agency attended AROSSE / SAR on 21st June 2022

A number of Best Available Techniques "BAT" assessments have been discussed the Agency in support of changes on site that have an impact on the Permit:

- The new discharge outlet from EPSP (Effluent Precipitation and Separation Plant) has been added into the CEAR's. EPSP replaces the older Magnox facilities, specifically the effluent process in A336. A BAT assessment has been written for EPSP alongside the progression of the project.
- A BAT assessment has been submitted to the Agency to justify the change from the existing N2 facility currently located within the Magnox Island to the new facility currently under construction located next to A342 pits. The BAT is accompanied by new process description for the Nitrogen Plant facility.
- Other BAT's have been discussed with the Agency over the period, the majority of which have been associated with various growth opportunities as the site continues work on new business.

Socio-Economic Report

Domestic and global energy cost and energy security issues have driven a significant increase in the prioritisation and recognition of nuclear power generation both home and abroad. This has driven increased interest in and support for Springfields from both governments and customers.



The acceleration of a civil nuclear programme in the UK presents Springfields with an exciting opportunity to be the fuel supplier of choice for all UK reactors both big and small and to become a fuel hub for Europe.

In addition, as a result of the Russian invasion of Ukraine, utilities and governments are looking to diversify the nuclear fuel service market for instance around conversion services. Discussions are ongoing with the UK government around how the £75m BEIS Nuclear Fuel Fund can be used to support investment at Springfields by Westinghouse to maintain and bolster nuclear fuel skills and domestic energy autonomy.



This interest has driven a significant increase in visits to the site and a growing global recognition of the role Springfields can potentially play in driving a cleaner more secure energy future for the UK and the west including, for instance, a recent visit by the US Department of Energy Assistant Secretary for Nuclear Dr Kathryn Huff.



Westinghouse Electric Company and ENUSA announced, during the World Nuclear Symposium earlier this month, their intent to collaborate on VVER-440 fuel fabrication.

This expanded partnership will build on decades of performance delivering a Western alternative to Russian fuel in the European market. There are currently 16 nuclear reactors in Europe operating with VVER-440 fuel and utilities in the region are actively looking for alternatives to Russian-supplied fuel.

Revised content for the SSG Socio-Economic report and how best to present the associated benefits is under review. Springfields continues to fully engage and develop this area and is recruiting specialist skills and resources to support us present our business. This includes a new UK Director of Government Affairs and Communication. In terms of business as usual activities all continue including support for:

- Visits to Springfields by stakeholders
- Sponsorship and Donations
- Community and Employee Involvement
- Employee 7 Connected People Themes including Wellbeing
- Skills & Apprentice Training

Glossary and Abbreviations

AHF	Anhydrous hydrofluoric Acid
ALARA	As Low As reasonably Achievable
ALARP	As Low As Reasonably Practicable
AGR	Advanced Gas-cooled Reactor
CETP	Clean Energy Technology Park
Cogent	The sector Skills Council for the Chemicals, Pharmaceuticals, Nuclear, Polymers, Petroleum and Oil & Gas industries
COMAH	Control of Major Accident Hazards
COSHH	Control of Substances Hazardous to Health Regulations
CR	Community Relations
OSHA	Occupational Safety & Health Administration (USA)
DAC*	OSHA Days Away Case (time off due to injury that is certified by a medical practitioner).
EA	Environment Agency
HID	Hazardous Industries Directorate
LTA*	Lost Time Accident
LWR	Light Water Reactor
Hex	Uranium Hexafluoride (UF ₆)
HR	Human Resources
IIP	Investors In People
ISA	Industrial Safety Accident
ONR	Office of Nuclear Regulation
Millisievert & Microsievert	These are units of measurement for radiation dose to individuals. 1 Sievert (Sv) = 1000 Millisievert (mSv) 1 Millisievert (mSv) = 1000 Microsievert (µSv)
NDA	Nuclear Decommissioning Authority
NNL	National Nuclear Laboratory
NSAN	National Skills Academy Nuclear
NSG	National Stakeholder Group (Facilitated by the NDA, as an interface between local, national and international stakeholders)
OFC	Oxide Fuels Complex
POCO	Post Operational Clean Out
PPE	Personal Protective Equipment
PWR	Pressurised Water Reactor (type of LWR reactor)
RIDDOR	Reporting of Injuries, Diseases & Dangerous Occurrences Regulations
RoSPA	Royal Society for the Prevention of Accidents
SFL	Springfields Fuels Ltd
TRIR	Total Recordable Incidence Rate
UAM/AUAM	Uranium Asset Management/Advanced Uranium Asset Management
UF₆	Uranium Hexafluoride
UO₂	Uranium Dioxide, both powder and granules
WEC UK	Westinghouse Electric Company UK Ltd

* LTA/OSHA DAC - These classifications refer to accidents causing an individual to require time away from work of more than 3 days and 1 day respectively