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SUT, MASTS and the D'Arcy Thomson Forum present:

The Salvage, Decommissioning & Wreck Removal Workshop

Tuesday 5th December 2023

(Auditorium A, Technology & Innovation Centre, University of Strathclyde, Glasgow)

The (Second) Energy Upheaval and Data: Head First Thinking and Learning from Experience.

We are in a second energy upheaval! The first occurred when the maritime sector changed simultaneously from sail to steam, and wood to iron. This second is to achieve 'net zero'. The technologies may be very different, but market need and human nature remain very much the same. How do we better organize ourselves to flush out Unintended Consequences?

Open

09:15 Karen Seath, Chair, SUT Salvage, Decommissioning & Wreck Removal Committee

[Welcome](#)

09:20 Keynote: Maggie Chapman, MSP for North East Scotland, Scottish Green Party

[Scene set on the Just Transition](#)

Session 1: The transparency of the energy upheaval.

09:35 *Chair: Charlotte Stamper, Energy Infrastructure Lead, European Metal Recycling*

Abigail Davies, Lecturer in Sustainability, Robert Gordon University

[GHG emissions and the energy 'transition' from oil and gas to renewables](#)

Tom Baxter, Visiting Professor, University of Strathclyde

[The Wise Use of Hydrogen](#)

John Owen, Consultant, Bernicia Marine

[Making decommissioning sustainable – the need for openness, consistency, transparency and sharing](#)

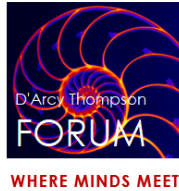
Discussion/Q&A using Mentee:

- What has offshore renewables learned from oil and gas (both, what to do and what not to do)?
- Is 'green washing' a thing of the past and does ESG (Environmental Social Governance) achieve its aims?
- Is OSPAR still 'relevant and complete' considering climate change?

11:00 *Wrap up/Coffee*

Session 2: Circular economy and offshore wind – Starting with the end in mind.

11:30 *Chair: Callum Falconer, Operations Director, Decom Mission*



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Lorna Bennet, Project Engineer, ORE Catapult

[A circular wind sector](#)

Stephen Norman, Global Business Development Director, Noble Denton Marine Services, DNV

[Total Assurance as an enabler - ensuring that decommissioning and disposal is designed-in and not an unwelcome afterthought](#)

Pietro Di Modica, KTP Associate – Wind Turbine Decommissioning, University of Strathclyde/ Seconded at Renewable Parts

[KTP Renewables Decommissioning Project – Onshore vs Offshore](#)

Steven Lindsay, Director, ReBlade

[Recycling and reuse challenges of wind blades](#)

Discussion/Q&A using Mentee

- What alternative materials could be used for wind blades?
- Could blades be different for on and offshore?
- How can wind companies be 'green'?
- Is floating offshore wind insurable and at what cost?

13:00 *Wrap up/Lunch*

Session 3: Environmental impacts & Emergency response

14:00 *Chair: Nicky Carigliola, Independent Consultant, Maritima Ltd*

Allan Stuart, Associate Director (1), and Paul Coates, Marine Fire & HAZMAT Consultant (2), Waves Group

(1) [Carriage of plastic nurdles in containers at sea](#)

(2) [Challenges and Risks associated with the carriage of Lithium-Ion batteries at sea](#)

Tracy Shimmield, Chair GESAMP (Group of Experts of the Scientific Aspects of Marine Protection)/ British Geological Society

[Mining and the Marine Environment](#)

Andy Birchenough, Technical Officer, Office for London Convention/Protocol & Ocean Affairs, International Maritime Organisation (IMO)

[The London Protocol/Convention on dumping of wastes and other matter – An update](#)

John Owen, Consultant, Bernicia Marine

[Salvage versus Oil and as approaches – A fireside discussion](#)

Discussion and Q&A using Mentee

- What do you perceive to be the greatest significant, long term negative, ecosystem impact from a shipping perspective?

15:30 *Wrap up/Coffee*

Session 4: Digital Technologies as a Way of Thinking, every bit as a means of Visualization

15:50 *Chair: Moya Crawford, Managing Director, Deep Tek and D'Arcy Thompson Simulator Centre*

[The SustainaVERSE™ – A collaborative digital journey; reliable and timely data for better decision making](#)



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Demetris Clerides, Head of EMEA, IQ3 Connect
Charlie Irons, Simulator Lead, D'Arcy Thompson Simulator Centre
[Live demonstration – Use of different digital media as tools](#)

Discussion/Q&A using Mentee

- Sustainable, Responsible, Impact+ Investment+ (SRII++) asking the question of algorithms and models when decision-making – why can I rely upon this?
- How to achieve integrated data collection to enable better integration between design, engineering, operation, and ecology.

Session 5: Researcher impact updates

16:40 *Chair: Tom Wilding, Benthic Ecologist, SAMS /INSITE Principal Investigator*

Tom Morgan, MASTS SUPER PhD student, Scottish Association of Marine Science (SAMS)
[Machine-based image analysis in seabed assessments](#)
Christoph Gade, PhD student, National Decommissioning Centre, University of Aberdeen
[Assessing post depositional reactivity of legacy contamination: A case study on mercury](#)
Hugo Woodward-Rowe, PhD student, School of Life Sciences, University of Essex
[Sedimentary blue carbon around decommissioned oil and gas platforms in the North Sea](#)

Q&A

17:15 *Wrap up and Closing remarks.*

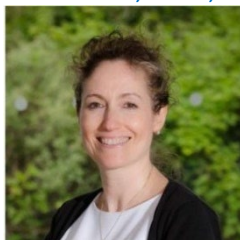
Dave Paterson, CEO, Marine Alliance for Science and Technology for Scotland (MASTS)

17:20 Close

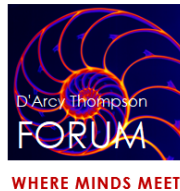
Speaker/Chair Biographies

Opening:

[Karen Seath, Chair, SUT Decommissioning & Wreck Removal Special Interest Group](#)



Karen has worked for over 25 years in the environmental, commercial and academic sectors. With a focus on sustainable strategy, environmental impacts of offshore infrastructure, circular economy (CE) opportunities (reuse/recycling) for decommissioned materials and stakeholder engagement, she leverages her extensive cross-sector network and practical understanding of academic, industry, government and community interfaces, to identify, develop and deliver opportunities for commercial, regulatory and academic entities. As a Marine Biologist, her passion for investigating the impact of man-made activities on the marine environment led her to work on research projects throughout Europe. Following a move into the private commercial sector, where she specialised in risk management and global regulatory affairs, she combined her interests to help commercialise innovative technologies and ideas from academic subsidiaries into the energy sector. Karen worked strategically to Chief Executive level with decommissioning member organisation Decom North Sea (now Decom Mission), and has chaired the SUT's Decom & Wreck Removal SIG since 2016. In 2017 she established her own company to provide



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strategic and practical support to organisations. Currently she is Lead Blue Economic Ecosystem with the D'Arcy Thompson Simulator Centre, and Environmental Director with CessCon Decom.

Keynote:

Maggie Chapman, MSP for North East Scotland, Scottish Green Party



Maggie Chapman is the Scottish Green Party MSP for North East Scotland and the Green spokesperson for Justice, Equalities and Human Rights, Economy, International Development and Social Security. She is vice convener of the Scottish Parliament's Equalities, Human Rights and Civil Justice Committee, a member of the Economy and Fair Work Committee, and a member of the Scottish Parliament Corporate Body. Born and brought up in Zimbabwe, Maggie moved to Scotland for university. Prior to her election as an MSP in 2021, she worked for feminist women's organisations and a disability charity, and had been a lecturer in human geography for over a decade. She was Rector of the University of Aberdeen from 2015-2021, and previously had been a City Councillor in Edinburgh for 8 years.

Session 1:

Chair: Charlotte Stamper, Energy Infrastructure Lead, European Metal Recycling

Charlotte is the Energy Infrastructure Lead at European Metal Recycling, a global material materials supplier. EMR offers circular solutions for end-of-life renewable energy infrastructure, including wind turbines and solar panels, through delivery of a complete end-to-end decommissioning service. Our focus is on providing customers with a low carbon, high value, decommissioning pathway for their assets. Prior to her current role, Charlotte was the Senior Policy Manager for offshore wind and marine renewables at Scottish Renewables. She also worked at Zero Waste Scotland where she was responsible for setting its strategic direction across the energy infrastructure sector with a particular focus on circular economy. She is a Chartered Waste Manager and holds a PhD in geochemistry.



Abigail Davies, Lecturer in Sustainability, Robert Gordon University

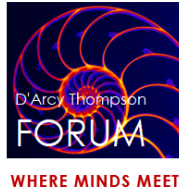


Abigail has over 15 years of experience in the oil & gas industry working in various roles in geosciences for operators and supply companies. Having very recently completed her PhD in the quantification of greenhouse gas emissions from decommissioning Abigail joined the Robert Gordon University in September as a lecturer in sustainability. Abigail's research interests include quantification of GHG emissions from the energy system, including GHG emissions transition pathway mapping, sustainability, circular economy and climate change mitigations.

Tom Baxter, Visiting Professor, University of Strathclyde

Tom Baxter graduated from Strathclyde University in 1975 with a B.Sc. in Chemical Engineering (first class honours). He is a Fellow of the IChemE and former member of the IChemE's Learned Society. He started his career with ICI Petrochemicals, moved to fine chemicals with the Swiss company Ciba-Geigy before taking a position as a Process Engineer in 1980 with BNOC (British National Oil Corporation). Through privatisation and acquisitions BNOC became Britoil then BP. Here he worked as an Operations Engineer, Development Engineer and Research Manager. In 1991 he left BP and joined Altra Consultants as Technical Manager. He accepted a position as Technical Director with Genesis in 1998 and became the Aberdeen Business Unit Director in 2005.





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He returned to his role as Technical Director in 2010 together with a position as Senior Fellow in the Chemical Engineering Department at Aberdeen University, which he helped establish. Since 2003 he has been visiting Professor of Chemical Engineering at Strathclyde University. He is currently a Chemical Engineering consultant providing energy and greenhouse gas reduction expertise.

(Captain) John Owen, Director, Bernicia Marine



Following a successful career at sea including several years in command on LPG tankers sailing in worldwide trades, John came ashore and then spent more than 30 years dealing with shipowners P&I and hull and machinery claims for International Group Clubs in the UK and Greece. John is a CEDR accredited mediator and now runs Bernicia Marine from Northumberland. He continues to assist shipowners and their clubs with a variety of marine insurance claims with collisions, groundings and salvage. John is an Associate Member of the International Salvage Union (ISU) and a Member of both OEUK and Decommission; hence his involvement with this event/committee. He's also an independent coastal representative of Northumbria Regional Flood and Coastal Committee working with the Environment Agency and regional councils on a variety of schemes in the NE of England.

Session 2:

Chair: Callum Falconer, Operations Director, Decom Mission

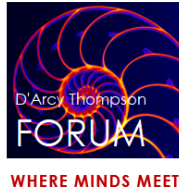


Callum has been in the oil and gas industry for over 35 years and was at Marathon Oil for 28 years, latterly evaluating late-life strategic and decommissioning development solutions for the Brae Field. Callum has been an independent consultant from June 2016 advising on oil and gas operations and decommissioning strategy globally, and in 2017 was appointed Chief Executive to the newly formed partnership Dundecom. He is very active within the industry and was on the IOGP decommissioning committee and on board of Decom North Sea from 2011 until 2015 and was Chairman in 14/15. Callum was re-elected onto the board of directors at Decom North Sea in 2019, now called Decom Mission, and then as Operations Director in May 2022.

Lorna Bennet, Project Engineer, ORE Catapult

Lorna joined the Offshore Renewable Energy (ORE) Catapult in June 2016 in the. She is involved in both research and design projects, with a background of mechanical design and project management. Lorna works on a wide variety of exciting projects, engaging with SMEs, organisations and academia to address industry challenges through technology innovation and research, supporting the energy transition, through diversifying and transferring technology offerings to the wind, wave and tidal industries. Since September 2020 she has been responsible for leading the delivery of projects under the Energy Transition Alliance (ETA) in collaboration with the Net Zero Technology Centre (NZTC). This ground-breaking collaboration aims to transform the energy sector, accelerating the UK's transition to net-zero and ensuring a reliable and secure source of power for the future. Her expertise is leading research into sustainable decommissioning solutions, towards the development of a Circular Economy for the Wind Sector (CEWS).





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Pietro di Modica, Wind Turbine Decommissioning KTP Associate, University of Strathclyde and Renewable Parts



Pietro is a Wind Turbine Decommissioning KTP Associate, with the University of Strathclyde and Renewable Parts Ltd. His knowledge and experience include (1) composites and fire resistance, developed during his PhD and PDRA positions at the University of Newcastle, working on FIRE RESIST and REFRESCO EU FP7 funded projects, (2) full scale component testing, from dual axis fatigue testing of blades for the DEMOWind project at the ORE Catapult, to various component qualification projects for the oil & gas and fusion energy sectors at Altrad Babcock (former Doosan Babcock), (3) innovation and process improvement implementation at Renewable Parts Ltd and the University of Strathclyde His latest research work is focused on applying circular economy principles to onshore wind turbine decommissioning, from a business model and technical process development perspectives. He will be sharing his insights from working with Renewable Parts Ltd, an innovative wind energy supply chain operator, who remanufactures turbine components.

Steven Lindsay, Founding Managing Director, ReBlade

Steven is a blade specialist with extensive industry connections and trusted contractor status among major utilities. A former world champion sled dog racer with a confident media profile, Steven has championed innovation and stakeholder engagement for renewables throughout his career. Steven's knowledge of the entire wind industry from being involved at senior levels in development, construction and operations has led to ReBlade adopting an industry centred approach to blade decommissioning that is not only sustainable and circular focused, but optimal from both cost and technical perspectives and thus enables unparalleled market penetration.



Session 3:

Chair: Nicky Cariglia, Independent Consultant, Marittima

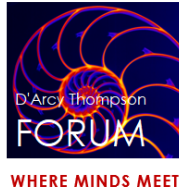


Nicky is a consultant providing emergency response and environmental advisory services to the maritime industry since 2019. Over the last 12 years she has attended more than 40 maritime incidents around the world providing technical advice on oil spill response, waste management associated with casualties and wrecks and post-incident impact assessments and recovery plans. Prior to this, Nicky held various field-based roles for organisations including the world bank, NGOs and consultancy focussed on MPA design, coral reef conservation and fisheries management. In recent years, this wide-ranging experience in marine environmental management coupled with an extensive network across the maritime industry has led to an interest in harmonising collective efforts for an environmental sustainability transition by linking private sector strategies to well-established and emerging practices founded on evidence and encouraging a long term vision built on pragmatism.

Allan Stuart, Associate Director and Naval Architect, Waves Group

Allan is a Naval Architect and Chartered Engineer with over 25 years of experience in the marine industry. He leads the naval architecture services provided by Waves Group relating to marine casualties and claims. He has extensive experience within all aspects of maritime casualty response, salvage, wreck removal, incident management and marine casualty investigations, regularly attending on site for salvages and wreck removal operations. His clients include P&I Insurers, Hull & Machinery insurers, Vessel Owners, Law firms, Charterers, Cargo Owners & Insurers, Government Bodies and Salvage Contractors.





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He is a member of the Lloyd's panel of Special Casualty Representatives (SCR) and a Member of Royal Institution of Naval Architects.

Paul Coates, Marine Fire & HAZMAT Consultant, Waves Group

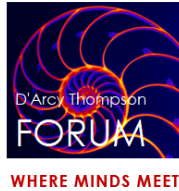


Paul has a strong Marine, Fire and Rescue Service, and Hazmat (Hazardous Materials) background. Having served in the Royal Navy for 5 years, seeing active service in the Falkland's conflict, he came ashore and served for 30 years in Hampshire Fire & Rescue Service, both as a Fire Station Commander and Flexible Duty Officer responding as Incident Commander or in other specialist roles. He established, trained, and managed the Hampshire's MIRG (Maritime Incident Response Group) team and has responded to ship fires as both on-scene Commander and Specialist Marine Officer. He has served as a HMEPO (Hazardous Materials & Environmental Protection Officer) and a D.I.M (Detection Identification & Monitoring) Officer. Paul has responded to numerous IMDG (International Maritime Dangerous Goods), Hazmat, drug laboratory and environmental protection incidents. Since joining Waves Group, Paul has regularly been involved in both responding to and the investigation of vessel fires, involving Crew Transfer, Container and Car Carrier vessels on behalf of P&I Clubs, Owners, Charterers and Cargo Insurers. He has delivered numerous fire prevention and Hazmat safety presentations to P&I Clubs and other industry bodies and training on 'ship fire-fighting' to both EMSA (European Maritime Safety Agency) and the UK MAIB (Marine Accident Investigation Branch).

Tracy Shimmield, British Geological Director, Lyell Centre

Tracy Shimmield is the BGS Director for the Lyell Centre, a facility, which enables the British Geological Survey and Heriot-Watt University to build on their individual and combined interdisciplinary expertise in land and marine conservation, geology and geoscience. Tracy has over 35 years' experience in environmental geochemistry. She obtained an MSc. from Strathclyde University and a Ph.D. from Edinburgh University. Her research interests include the investigation and assessment of human impacts on the marine environment through the monitoring of pollutants and the study of biogeochemical processes involved in their redistribution. Since 2006, her research interests have focused on impacts of mining on the marine environment, and she has worked in Papua New Guinea, Chile, and Norway. She is a member of Joint Group of Experts on the Scientific Aspects of Marine Environmental Pollution (GESAMP) and Chairs working group 42: Impacts of wastes and other matter in the marine environment from mining operations, including marine mineral mining. Tracy is interested in how science and innovation can come together to realise societal benefit and economic growth and is chair of the Orkney Research and Innovation Centre (ORIC) board. She sits of the executive committees of Scottish Alliance for Geoscience, Environment and Society (SAGES) and Scottish Consortium for Rural Research (SCRR). She is also a member of the INSITE programme advisory board and has recently taken up the Chair of the Marine Alliance for Science and Technology for Scotland (MASTS) Advisory Board.





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Andrew Birchenough, Technical Officer, Office for the London Convention/Protocol and Ocean Affairs at the International Maritime Organization (IMO)



Andrew has a background in applied environmental research, focusing on marine pollution and ocean and coastal zone management, and holds a doctorate from Newcastle University. He joined the IMO in 2017, his primary task being to support the implementation of the London Convention and Protocol, the international treaties that regulate the dumping of wastes and other matters at sea. He is also involved in the Office's Ocean Affairs portfolio, including the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) and in other IMO Marine Environment Division work including on Particular Sensitive Sea Areas (PSSAs) and matters related to the 2030 Agenda for Sustainable Development and the SDGs. Prior to joining IMO, he worked for Cefas and was responsible for providing scientific policy and regulatory advice to UK Government and regulators on the potential risks and impacts to the marine environment, and represented the UK at international and regional fora.

Session 4

Chair: Moya Crawford, President of the SUT; MD, D'Arcy Thompson Simulator Centre and Deep Tek

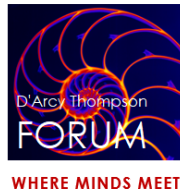
Moya has worked in the marine and offshore world for over forty years, combining hands-on experience in onsite operations, with positions at executive level. Her core background is the marine salvage industry in the specialist field of deep water cargo recovery. Since the early 1990s, as Managing Director of Deep Tek Ltd, she has concentrated on taking innovative salvage technology, developed on a principles-based approach, into the oil and gas sector, working predominantly between the UK and Norway. Her commitment to building sustainable, technology-led business that is informed by the best available marine science underpins her new role as Managing Director development of the D'Arcy Thompson Simulator Centre Limited at the University of St Andrews' Eden Campus, a joint venture between Deep Tek and the University's wholly owned subsidiary StAAR Ltd. She is the current President of the Society for Underwater Technology and also the Chair its International Salvage & Decommissioning Committee, and sits on the Advisory Board of the Marine Alliance for Science and Technology Scotland (MASTS).



Demetris Clerides, Head of EMEA, IQ3 Connect



Demetris has got Mechanical Engineering background, holding a PhD in Fluid Mechanics from Imperial College London and an MBA from INSEAD in France and Singapore. Demetris has always been a high tech enthusiast and his professional career has been built around cutting edge simulation software. He held a variety of positions in EMEA and Asia/Pacific and his efforts are now focussed on uncovering engineering use cases for virtual reality and advocating its application to support environmental sustainability.



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Charlie Irons, Simulator Engineer, D'Arcy Thompson Simulator Centre

Charlie graduated with a MEng in Mechatronics from The University of Glasgow. He worked with robotics, and sensors in Health, Materials and Sustainability, and is currently Lead Engineer and is running the simulator at The D'Arcy, whilst also innovating and integrating sensors for the simulator.



Session 5:

Chair: Tom Wilding, Benthic Ecologist, SAMS /INSITE Principal Investigator



Tom is an ecologist and statistical modeller specialising in assessing the impacts of man's activities on benthic systems and am currently leading the development of novel imaging and eDNA-based approaches to monitoring change. I frequently work at the interface between research, policy, and regulation.

Tom Morgan, PhD Student, Scottish Association for Marine Science

Tom's PhD research focuses on developing and optimising automated analysis of image and acoustic data as applied to seabed characterization. He is using a combination of autonomous underwater vehicle technology and machine learning for image and audio analysis to identify and categorise protected benthic natural features.

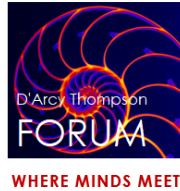


Close:

Dave Paterson, CEO, Marine Alliance for Science and Technology for Scotland (MASTS)



Professor David M. Paterson FMBA holds a personal chair in Coastal Ecology at the University of St Andrews and is Executive Director of the Marine Alliance for Science and Technology for Scotland (MASTS). He also Chairs the Sullom Voe Oil Terminal Environmental Advisory Group (SOTEAG) and is also working on the ecological effects of oil and gas decommissioning. He has 25 years of experience in research on marine systems and held a Royal Society University Research Fellowship at Bristol before moving to St Andrews. He established the Sediment Ecology Research Group (SERG) and continued his work on the dynamics and ecology of coastal systems. SERG has an international reputation for innovation and scholarship in marine science and strong national and international funding. Professor Paterson has led many successful interdisciplinary projects (EU and National). Recent research involves biodiversity, ecosystem function, ecosystem services, and global change biology particularly the effects multiple stressors (ocean acidification, temperature and hypoxia). He also advises industry, academic institutions and Scottish Government (and has served as a trustee for several important marine organisations).



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Waves Group combines the expertise of Mwaves & Cwaves. We are a completely independent Marine & Engineering Consultancy to the shipping and offshore energy industries for marine casualties, claims, litigation, disputes, salvage, wreck removals, renewable energy, platform decommissioning and other offshore projects. Our philosophy is based simply upon delivering exceptional service to our clients at a competitive price, using our diverse skill-set and successful track-record of our team of specialist consultants.

Our team of naval architects, master mariners, SCRs, maritime civil, structural and marine engineers have many years' experience in casualty response management and investigations. We provide technical support and advice with a 24/7 response service available for marine casualties, salvage, wreck removal projects and port damage claims worldwide.



Fugro is the world's leading Geo-data specialist, collecting and analysing comprehensive information about the Earth and the structures built upon it. Through integrated data acquisition, analysis and advice, we unlock insights from Geo-data to help our clients design, build, operate and decommission their assets in a safe, sustainable and efficient manner. Employing approximately 10,000 talented people in 65 countries, Fugro serves clients around the globe and provides integrated offshore solutions for the decommissioning, abandonment and removal of oil and gas infrastructure from the surface to the seabed. We also support our clients in the restoration, and long-term monitoring and reporting, of decommissioned sites. Our expertise spans the full project life cycle and includes optimised monitoring, planning and support to streamline your offshore operations and meet or exceed your decommissioning requirements.