

Hinkley Point C - Industrial Collaboration





HPC Emerging Complex Supply Chain

International, National & Local partners working together to deliver Hinkley Point C



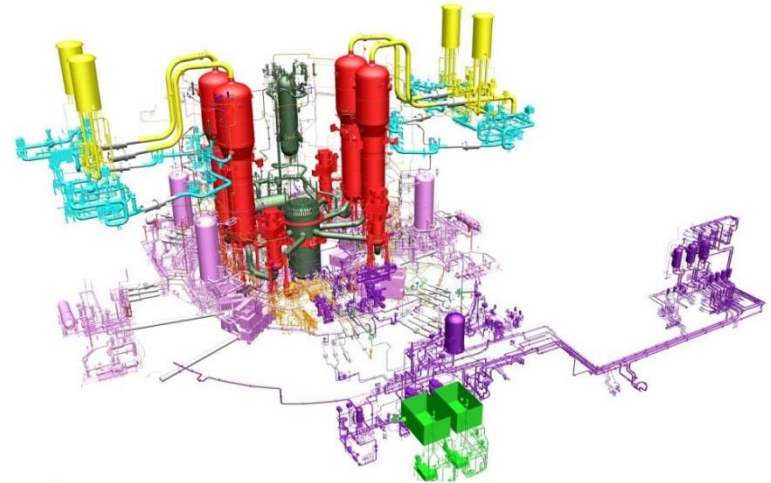


Building better energy together



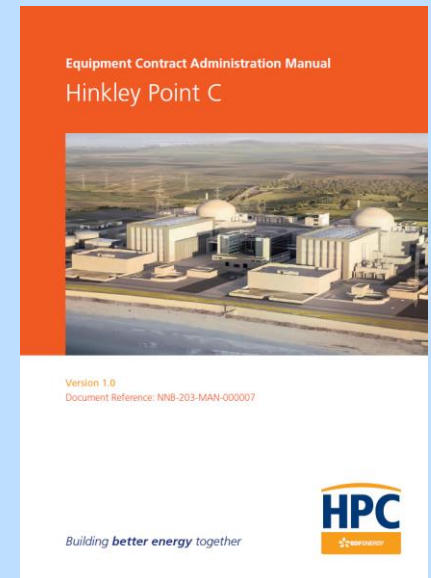
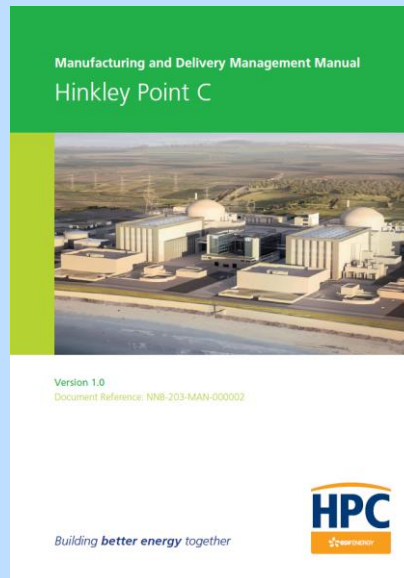
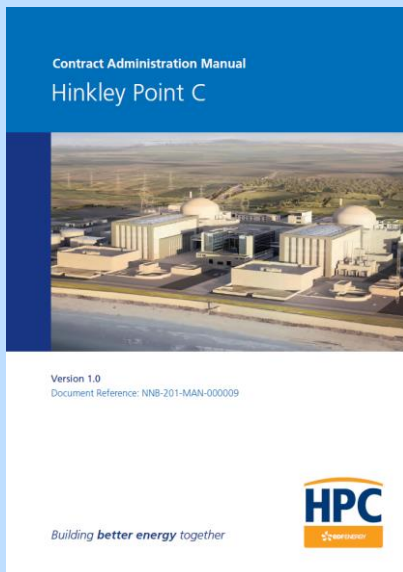
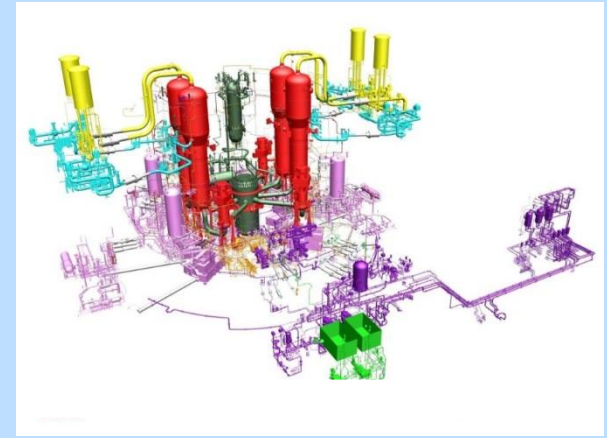
Doing Business Differently – The Contract & Supply Chain!

1. In the first Instance the Contract should drive performance, and **NOT** be used to protect EDF Energy in the event of Default

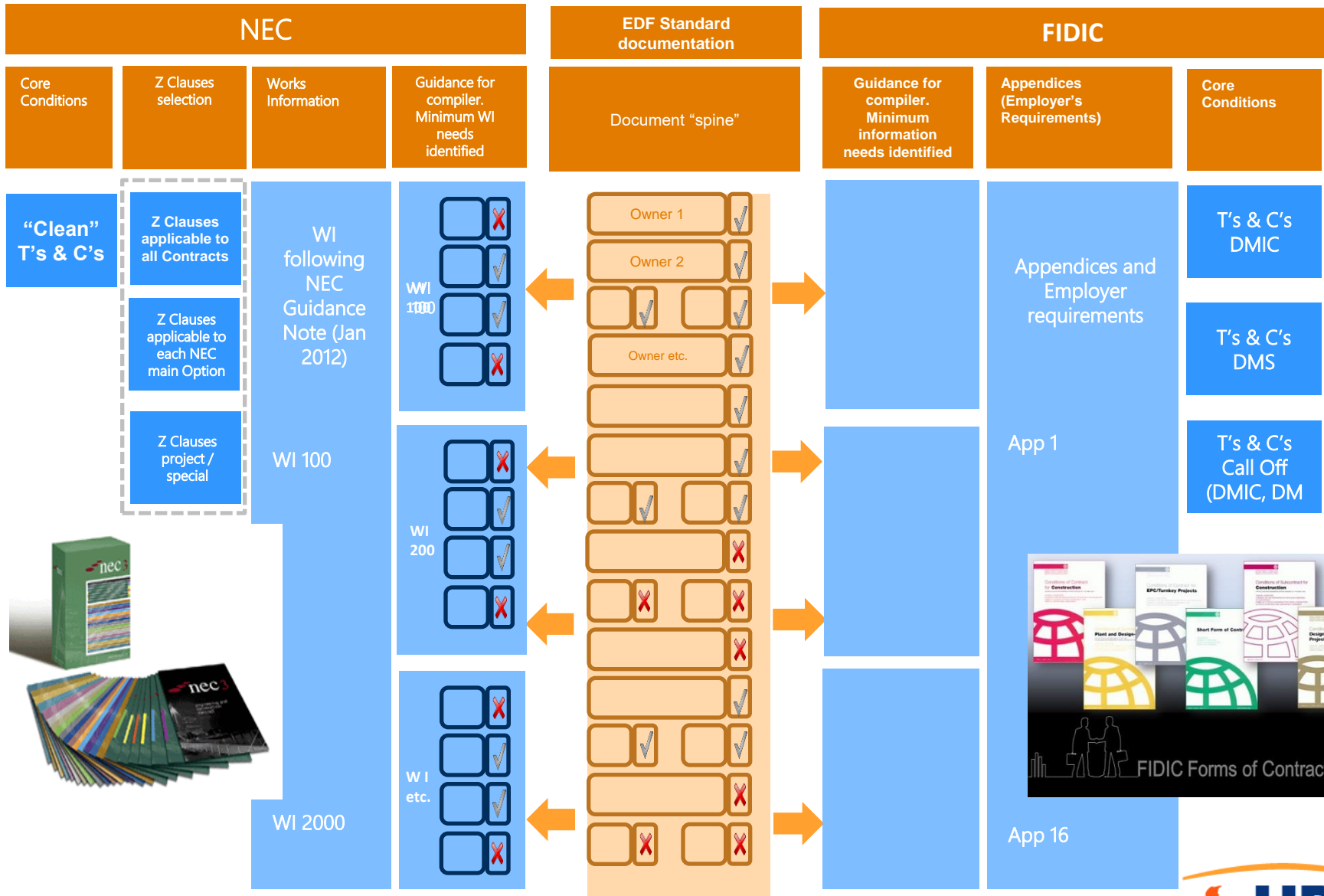


2. Management of the Contract should **ALWAYS** ensure the commercial interest of the parties remain aligned, in order to avoid adverse impact on delivery

Doing Business Differently – The Contract & Supply Chain!



Different applications required different approaches!



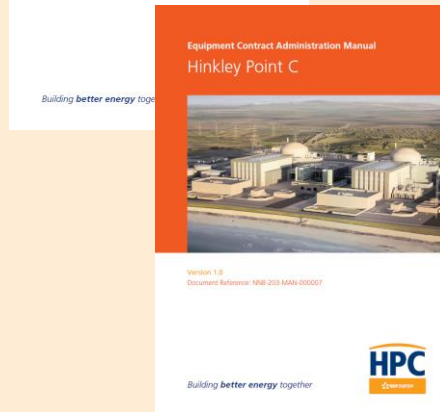
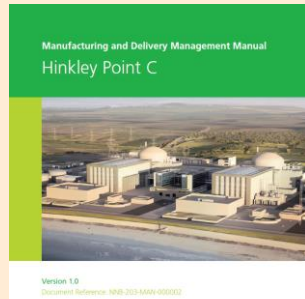
Restructured the Contract Templates

Contract & Manufacturing Excellence –

#17 Exhibition Stands & 3 Interactive Workshops

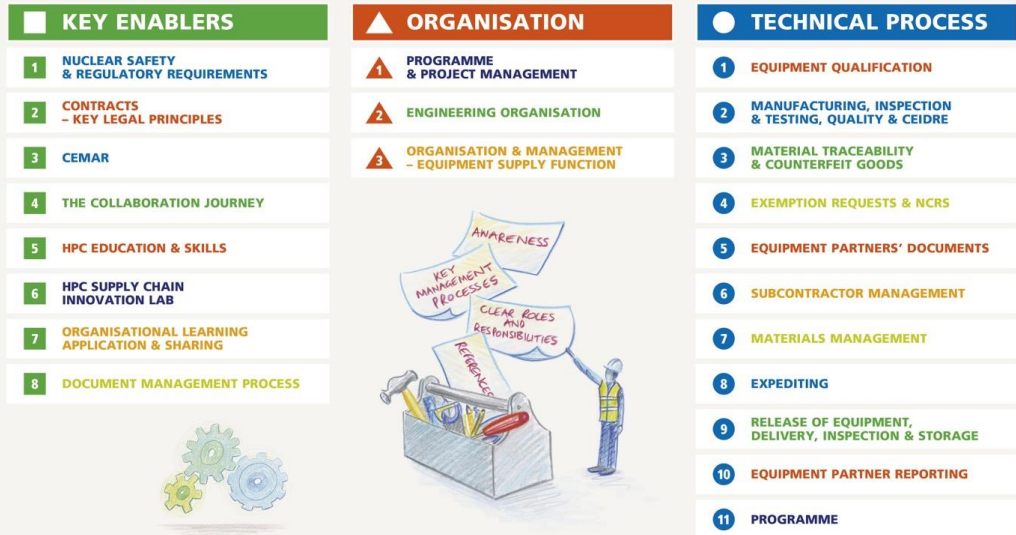
Key Enablers –

Technical & Procedural, plus Behavioural & Organisational development



INTRODUCTION TO HPC SUPPLY CHAIN FRAMEWORK

HPC REQUIRES AN APPROPRIATELY STRUCTURED ORGANISATION TO MANAGE A COMPLEX WORKSCOPE USING KEY ENABLERS AND TECHNICAL PROCESSES



DELIVERING MANUFACTURING EXCELLENCE

The way in which we organise ourselves, our people, tools and processes will ensure that we are ready to overcome the challenges presented during the course of the HPC Project.

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NUCLEAR SAFETY & REGULATORY REQUIREMENTS

NUCLEAR SAFETY IS OUR OVERRIDING PRIORITY, NOT ONLY DURING CONSTRUCTION BUT ALSO DURING OPERATION AND DECOMMISSIONING

ONR TAG 77 – summary of ONR expectations applied to a basic procurement cycle for work with nuclear safety significance

OUR FOCUS IS TO DELIVER “SAFETY AND QUALITY TODAY TO ENSURE NUCLEAR SAFETY FOR A LIFETIME.”

Our Nuclear Safety Policy (NNB-308-POL-000008) states:

“Nuclear safety requires us to protect individuals, society and the environment by establishing effective defences against radiological hazard throughout the project and future plant operation and decommissioning. This is achieved by the proper implementation of the design and through the physical and organisational defences embedded in the plant and management systems.”



An effective strategy enables delivery of safety case requirements, with Licensees maintaining an 'Intelligent Customer' capability for all work.

Specifications adequately describe the items or services, and identify the appropriate safety and quality requirements.

Evaluate and confirm suppliers have the capability, quality and safety management to deliver items or services to the specification.

For bought in components, suppliers are expected to identify any deviations from specified requirements, with appropriate mitigation of the risks of Counterfeit, Fraudulent or Suspect Items (CFSI) entering supply chain.

Capture, act on and share operational experience feedback from supply chain and supply chain management activity.



The supply chain, law and nuclear safety requirements for ensuring operator compliance

LEGISLATION AND LAW

- Health and Safety at Work Act 1974
- Nuclear Installations Act 1965
- Energy Act 2013
- Ionising Radiations Regulations 1999
- Nuclear Industry Security Regulations 2003

NUCLEAR OPERATOR

- Self Audit to Legislation Standard
- Compliance
- Assurance
- Governance



HPC SUPPLY CHAIN

- Tier 1, 2, 3, etc.
- Mapping
- Compliance
- Assurance
- Governance

REGULATORY REQUIREMENTS

- ONR
- Licence Conditions, in particular: LC17, 19 and 20
- Technical Assessment Guides, in particular: TAG 33, TAG 49 and TAG 77
- Approximately 320 Safety Assessment Principles (as applicable)



DELIVERING MANUFACTURING EXCELLENCE

There is no greater priority than nuclear safety. Our behaviours and those of our Equipment Partners must be guided by this principle, which must prevail in everything we do.



NUCLEAR SAFETY & REGULATORY REQUIREMENTS

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ONR TA expect: procur: nuclear

LEARN



EQUIPMENT QUALIFICATION

ENSURING OPERABILITY IN NORMAL AND ACCIDENT CONDITIONS



MANUFACTURING, INSPECTION & TESTING, QUALITY & CEIDRE

MONITORING THE MANUFACTURING OF HPC EQUIPMENT BY EQUIPMENT PARTNERS



MATERIAL TRACEABILITY & COUNTERFEIT GOODS

MATERIAL TRACEABILITY AND COUNTERFEIT GOODS ARE A PROBLEM THAT REQUIRES COMMITMENT FROM ALL



EXEMPTION REQUESTS & NCRS

PREVENTING NON-CONFORMING EQUIPMENT FROM ENTERING THE HPC SUPPLY CHAIN



RELEASE OF EQUIPMENT, DELIVERY, INSPECTION & STORAGE

RELEASING ONLY FIT FOR PURPOSE EQUIPMENT, AND OVERSEEING EQUIPMENT DELIVERY AND STORAGE POST-MANUFACTURING



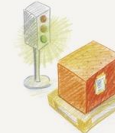
SHIPPING AUTHORISATION REQUEST (SAR)

Equipment Partners will only release a shipment of equipment once NNB has granted approval of the specific Shipping Authorisation Request (SAR) completed for the shipment. Each SAR will be approved by the NNB project manager, and as a minimum shall contain the following:

- A fully signed Quality Release Certificate (QRC) to demonstrate compliance with equipment quality requirements
- Confirmation by CEL that all required Document Deliverables are approved
- Qualification process completed
- NCR's closed (no open points)
- Shipping documents
- Confirmation of construction programme requirement and desired delivery location

ENTERPRISE ASSET MANAGEMENT SYSTEM

Maintaining full asset lifecycle information is critical to data-based decisions in a digital asset management world.



SCOPE OF ASSET MANAGEMENT



NNB STORAGE AND LOGISTICS

NNB's warehouse and storage facilities Off-Site and Onsite (as required) will be operated via a warehousing managed service contract designed to develop warehousing arrangements that support construction delivery. The managed service contract will cover the onward transportation of Free Issue equipment from suppliers to site and the handover of this equipment to erection contractors.

The storage and transportation service will utilise the Delivery Management System (DMS) to comply with Development Consent Order. If suppliers deliver direct to site they will be responsible for DMS bookings.



PRESERVATION AND MAINTENANCE

Each asset needs to be carefully managed to ensure it is in the best condition to fulfil its design function. Any such equipment purchased by NNB that requires maintaining must be supported by a Care and Maintenance Plan prior to the receipt at the NNB stores.



The release strategy ensures that only equipment meeting project requirements is released for delivery to site. Equipment Partners are responsible for the correct delivery of equipment to site, and, where appropriate, storing equipment adequately and with the required preservation documentation.



DELIVERING MANUFACTURING EXCELLENCE

3 words to describe the HPC event in Paris

INFORMATIVE PROFESSIONAL OPEN CLEAR
EXCITING INSPIRING THOUGHT-PROVOKING VISUAL
GOOD WELL-PRESENTED USEFUL CONSISTENT
PRACTICAL THOUGHTFUL BUSY
POSITIVE KNOWLEDGEABLE SAFETY GLOBAL VITAL
PERSPECTIVES EFFICIENT CONNECTING
ENERGISING IMPACTFUL COLLABORATION QUALITY
HUMAN CLEAN TRUST ORGANISATION
MOTIVATING VIVID VARIED NETWORKING COMPLEX
AWESOME WORTHWHILE

The world of Manufacturing

98% Felt Inspired

97% Material & Workshops Beneficial

100% Event good use of their Time

3 words to describe the HPC event in Bristol

INFLUENTIAL INFORMATIVE
MOTIVATIONAL COMMUNICATION PROUD
ENGAGING FULL-ON IMPRESSED THOROUGH
MEANINGFUL BEHAVIOUR ENCOURAGING
POSITIVE GOAL INSPIRING RELEVANT
STRUCTURED EDUCATIONAL TRUST KNOWLEDGE
INTEGRAL BELIEF RELATIONSHIPS
ACHIEVE COLLABORATION
INSPIRE
SURPRISING MEMORABLE OPEN VAST ORGANISED
REWARDING COMPREHENSIVE FANTASTIC NETWORKING
CHALLENGING POSITIVITY LEARNING SUCCESS
FOCUSED HELPFUL VALUABLE EXCITING DAUNTING
ENERGISING TEAMWORK DETERMINATION HUMBLD

The world of Construction

98% Felt Inspired

95% Material & Workshops Beneficial

95% Event good use of their Time



Safety Culture and Supply Chain Integration

Key learning & Observations

1. The 'Contract' is the key link for doing business! → *'Often ignored'*
2. Understand how the 'commercial' parameters could potential adversely impact 'safety & quality' → *'Change/Renegotiate if needed'*
3. Educate, Educate, Educate → *'Build a collective understanding'*
4. Client Leadership (Intelligent Customer) → *'Fundamental'*
5. Collaboration → *'Easy' to say, but 'Hard' to build, reinforce and sustain*
6. Integrated Supply Chain → *Trust, Excellence & Quality*