Detritiation System Acquisition

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Tritium Plant

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DS functions:

- **Detritiation before gas release to environment**
- **Pressure Depression for dynamic confinement**
- **Filtration of radioactive particulates**
DS Overview and Safety Functions

Clients
Air
Inert
Q2
Water
Hydrocarbons

Filter
Recombiner
Blower

Filtration
Detritiation
Pressure Depression

H2O
Stack
Detritiated Gas
TM
Scrubber Column
WDS
Q2O
Tokamak Complex DS (all 8 modules)

Scrubber columns, 8 each (11 m tall)
• DS core
  – At early final design
• DS piping network
  – Captive pipe installation begins 2021
• DS Qualification
  – Technologies validated
  – Beginning system qualification tests in 2021
Industrial Opportunities – TC-DS DS Design & Fabricate

• Scope
  – Tokamak Complex Detritiation System (TC-DS) Core
    • Total 8 modules (2 for normal operation; 6 standby for accident conditions)

• Planned contract for final design and procurement/fabrication of TC-DS Core
  • Call for tender to be launched in 2021
  • Final Design: 2022 - 2024
  • Initial manufacturing and testing first components: 2024 – 2027
  • Full manufacturing: 2025-2027
Industrial Opportunities – Other planned DS contracts

Other design & fabricate contracts planned as separate contracts:

• TC-DS Piping network (2023 – 2025)
  – Approximately 8 km piping network connects clients to TC-DS Core

• Component Nuclear Qualification (2023 – 2025)

• Hot Cell Facility Detritiation System (HCF-DS)
  – HCF-DS Core: 6 modules, similar arrangement to TC-DS
  – HCF piping network similar scale to TC-DS piping network
  – Will follow later according to Hot Cell Facility schedule
Thank you