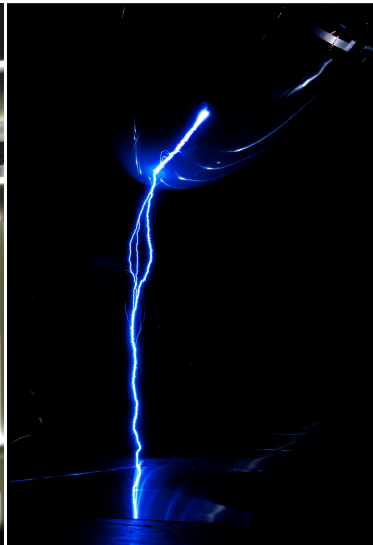
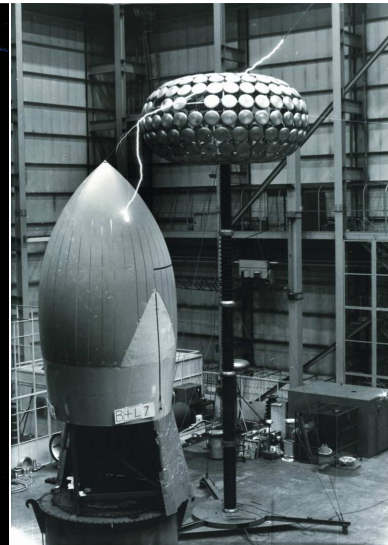


Testine Areva's 800kV HVDC valve stack, Clothier, 2007



Radome testing, Clothier, 2009



Nimrod radome testing, Clothier, 1985

As an independent testing and development platform, we operate under strict levels of confidentiality and discretion and carry out HV testing against the IEC 61400-24 (lightning protection of wind turbines) standard. Narec's project team has a longstanding reputation for providing a first class service, having worked together from our laboratories for over twenty years ensuring customers can truly make the most of the development and testing services we provide.

Background

The Clothier UHV Laboratory was officially opened in 1970 to serve the needs of the growing power transmission and distribution markets. Now part of Narec's Electrical Networks Division, its 40-year-long reputation for testing excellence continues with experience of testing nearly all major items of primary plant deployed in transmission and distribution networks. Considerable experience has also been gained over the years in lightning testing of military aircraft radomes. Our laboratories have been officially accredited by both ASTA and UKAS. In addition, Narec is the custodian of the UK HV reference measurement standards.

Services

Our lightning impulse generator can generate both lightning (1.2/50 μ s) and switching impulse (250/2500 μ s) voltage waveforms with positive and negative magnitudes up to 3.2MV and 2MV respectively. This allows us to perform both swept-channel and leader-attachment tests on wind turbine rotor blades. Our Main Laboratory dimensions are 50x30m (l x w), with crane height

of 29m and loading capacity of 8 tonnes. Our workshop facilities allow repair and adjustment work to be conducted on-site, if required.

Partners

Where Narec's service portfolio does not satisfy client requirements we engage partner organisations to compliment our service offering (for example, enhanced design consultancy and lightning current testing) to allow us to provide a fully managed design, test and certification service tailored to fit specific requirements. By working with our partners, we can deliver the full testing programme specified in the IEC 61400-24 draft standard.

Objectives

Narec provides development and type testing services and offers design support to equipment designers and manufacturers. Our independent Testing Authority Observer manages type test programmes, witnessing testing conducted in other approved laboratories and compiling type test reports.