

RING MAIN UNIT & TRANSFORMER INSULATING OIL REPLACEMENT



LOCATION

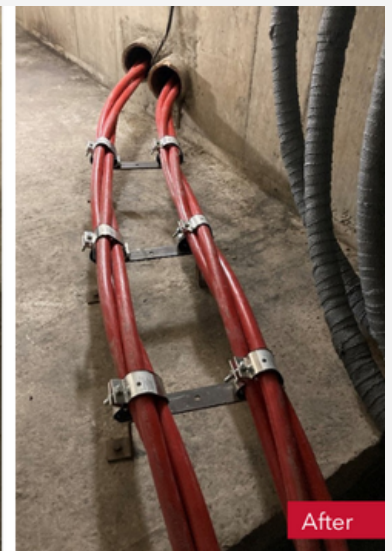
Cruddas Centre, Newcastle-Upon-Tyne

OVERVIEW

IUS was engaged by NPg to replace an aged, oil filled Reyrolle LMI, Ring Main Unit (RMU), as well as the insulating oil within a 750kVA, 11000/433v transformer at Cruddas Centre substation. Following appropriate isolation and earthing, the Reyrolle switchgear was removed and a new Schneider Electric RN2D RMU was installed. The transformer mineral insulating oil was decanted, compliantly removed from site and replaced with midel insulating oil. This would result in a substation with a reduction in flammable properties.

SERVICES PROVIDED

- Substation survey
- Outage planning
- Safe systems of work
- Civil excavation
- Switchgear removal
- New switchgear installation
- Transformer insulating oil removal
- Midel insulating oil transformer fill
- 11kV cable jointing
- Testing and commissioning
- Handback documentation



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THE PROJECT

Following a detailed survey, IUS established a safe system of work to replace the Reyrolle RMU as well as the transformer insulating oil. This would be completed during a shutdown, which would also encompass the jointing and termination of 40m of cable overlay. The pre-start site survey identified asbestos cable, which was removed and disposed of as a hazardous waste in accordance with legislation. The existing cable ducts were cleaned prior to our attendance and new XLPE Triplex cable was installed during the asset replacement.

On completion of the works the IUS Senior Authorised Person (SAP) carried out insulation resistance, continuity and over voltage pressure tests prior to the substation equipment being energised. All subsequent test results were collated by the SAP and passed to NPg for record retention.

"I am extremely pleased with the work carried out by IUS at Cruddas Centre for our 11kV asset replacement project. Despite facing some significant challenges along the way, the team remained professional, adaptable, and committed to ensuring the project was completed to a high standard. Their expertise and collaborative approach helped to overcome the obstacles, delivering a successful outcome for this critical work."

Shaun Blenkinsop - Project Engineer, Northern Powergrid