



COTTAM POWER STATION EMERGENCY ABSTRACTION

Example of dewatering under an
emergency abstraction licence to repair
a ruptured critical underground pipe

Wellpoint dewatering to allow excavation and repair of a ruptured pipe under an emergency abstraction licence

A critical pipe had ruptured at Cottam Power Station. Ensuring the works area remained dry and stable with the double-sided vacuum wellpoint dewatering system was crucial for the excavation and repair of the ruptured pipe.

To facilitate the dewatering of an excavation up to 5m in depth, vacuum wellpoints were installed from a reduced level (~1 m depth). With limited suction lift this enabled wellpoints to terminate 2m below the excavation level. The system proved successful allowing emergency repairs to be undertaken within a safe and stable environment.



Objective

The pipe carrying the single supply of cooling water to Cottam Power Station had ruptured. Excavation and repair of the pipe was needed to ensure the plant remained operational and the abstraction of groundwater was necessary to facilitate these works.



Solution

On behalf of our client, Stuart Wells successfully applied to the Environment Agency for an emergency water abstraction licence to enable the excavation and repair of a ruptured pipe.

A double-sided vacuum wellpoint dewatering system was installed along the pipeline, approx. 25m in length and up to 5m wide. The wellpoints successfully lowered the groundwater level within the sands and gravel to below the excavation level, pumping at up to 432 m³/day. Abstracted groundwater was transferred along a temporary pipeline and discharged, downgradient, back into the pipeline under repair.

| | |
|-----------------|--|
| Services | Emergency abstraction <u>Wellpoint dewatering</u> |
| Location | Retford |
| Industry | Energy |