

Case Study

Recycling of Coal Tar Bound Asphalt - CL:AIRE DoWCoP Cluster Project

Client

National Waste Management Group.

Remediation Value

£100,000.

Status

Complete.

Contamination

Asphalt waste is created during repair and of roads and areas of hard standing and where sites are undergoing redevelopment. Where the binding agents contain coal tar and exceed the relevant threshold, the asphalt is classed as hazardous.

Many brownfield sites contain such hazardous asphalt, and so require remediation. This has generally been by disposal to landfill. Finding suitably licensed receiver sites has become more problematic, as well as being an unsustainable solution. Potential options for reuse of the material have therefore gained traction.

Applying suitable technical solutions and negotiating the complex legislation to ensure that recycled material is no longer classified as waste are key to securing sustainable uses for coal-tar bound asphalt.

Challenges

- Several development sites around the SW of England required remediation of coal tar bound asphalt.
- Options for disposal to landfill were limited.



- Either development requirements prevented reuse on the site of origin, or the volume on each site was too small to make reuse commercially viable.
- Reuse of hazardous wastes in construction requires an Environmental Permit. Although RPS75 allows reuse of asphalt containing coal tar under certain circumstances, it does not permit treatment, or consolidation of wastes from multiple sites.

Remediation Approach

- Remediated asphalt was used as engineered fill to meet an identified need and achieve planning requirements for redevelopment of the receiver site.
- A stabilisation-solidification method was used to lock in hazardous substances, rendering them harmless.
- Pilot tests were used to determine the most effective remediation method.
- Leachate testing of trial batches and samples from the treatment site were used to demonstrate the effectiveness of the procedure.

- UK Remediation deployed our Mobile Plant Permit to enable import and treatment of approximately 4,000 tonnes of hazardous asphalt at the client's site.
- The project was established as a cluster system under the CL:AIRE Definition of Waste Code of Practice (DoWCoP), enabling hazardous asphalt to be taken for treatment and reuse at the receiver site.
- A Materials Management Plan was used to track and evidence all materials through the system.
- Treatment and reuse were undertaken in accordance with the EA Regulatory Position Statement, RPS75.
- Once laid and compacted, the geotechnical and environmental parameters for the treated material met Specification for Highways Works requirements.
- UK Remediation prepared all submission documents and was responsible for site monitoring, materials testing, information management and reporting to achieve final project closure.

