MANAGING COAL TAR RISKS

Scottish & Southern Electricity Networks

INTRO

Over the last few weeks, we have shared comms on our updated SEPD Street Works Protocol and the fact that - due to circumstances beyond SSEN-D's control, we have had to delay its implementation.

The driver of the updated protocol is that waste generated from excavations is **appropriately classified** onsite to ensure it goes to the correct processing facility for safe disposal. As per the guidance of the Street Work Protocol, the product we are looking to establish the presence of is coal tar.

What Is Coal Tar and Why Is It a Concern?
Coal tar, a by-product of coal gas production, was widely used in UK road construction until the 1980s. It contains polycyclic aromatic hydrocarbons (PAHs), some of which are known or suspected carcinogens. In addition, coal tar releases volatile organic compounds (VOCs), which can contribute to air pollution and pose inhalation risks, particularly during heating or disturbance. While coal tar is generally stable when encapsulated in asphalt, it can become hazardous during roadworks, posing risks to human health and the environment. These risks are manageable with appropriate safety controls and procedures. It's also important to note that not all tarmac contains coal tar or PAH.

It is most dangerous in its hot liquid form, and significantly less so in cold hard form.

Nationally, only 6% of samples fell into the potentially hazardous waste category.

WHAT IS THE ISSUE?

Health Effects of Exposure without appropriate controls
In the short term, exposure can lead to:

- Eye, nose, and throat irritation
- Coughing, wheezing, and shortness of breath
- Skin irritation or burns from direct contact

Long term exposure can lead to:

- Chronic respiratory diseases (e.g., bronchitis, emphysema)
- Increased cancer risk, particularly skin, lung, gastrointestinal and bladder cancers
- Systemic toxicity from prolonged dermal or inhalation exposure

The main possible routes into the body are:

- Skin contact – use of appropriate gloves and overalls providing full body cover will prevent direct contact
- Inhalation – breathing in fumes or finely cut particles - use of water suppression and the use of FFP3 face masks reduces the risk of inhalation whilst cutting tarmac; if working in confined spaces, then seek further guidance from SHE team
- Ingestion - practicing good hygiene is essential – e.g. washing of hands before taking a break

MANAGING THE RISK

The introduction of the new Street Works Protocol is a good point to remind our colleagues of the existing controls in place within SSEN-D when cutting tarmac. These controls also cover the hazards associated with coal tar and include:

Engineering Controls

- Use dust suppression systems (e.g., water sprays, vacuum extraction).
- Prefer cold milling over hot cutting to reduce vapour release.
- Identification of coal tar products using PAK spray or using sense of smell.

Personal Protective Equipment (PPE)

- FFP3 masks are sufficient in well-ventilated/outdoor areas if dust emission is considered high.
- Eye protection - light eye protection (EN 166).
- Waterproof gloves – Traffi 6060

Safe Work Practices

- Practice good personal hygiene – wash hands before taking breaks.
- Keep workers upwind of cutting operations.
- Minimise time spent near active cutting zones.

Waste Management

- Classify waste using street works protocol.
- Store waste on impermeable surfaces with sealed drainage.
- Use licensed carriers and hazardous waste consignment notes.