

Oil releases from electrical equipment



Transformers and other equipment may release toxic, flammable oils when damaged by impact or fire. Protect yourself, the public, and the environment during these incidents.



Initial precautions

Oil can leak from transformers, regulators, capacitors, switchgear, reclosers and other utility gear.

Immediately report any oil release to the incident commander and National Grid. Equipment must be de-energized by utility crews before mitigation or firefighting.

While awaiting National Grid personnel:

- **Wear appropriate PPE and SCBA.**
- **Isolate the area:**
 - Maintain a **50-foot perimeter** for pole- or ground-mounted equipment.
 - Maintain **300 feet** for substation equipment
- **If burning oil or equipment is present**, stay upwind and consider **1,000-foot** downwind evacuation, extending as needed for weather or incident size.

Prevent oil spread and water contamination

Treat all oil releases as hazardous materials incidents. National Grid or an authorized contractor will handle cleanup and disposal.

Do not spread oil – avoid walking, dragging hoses or driving through spills. Once National Grid confirms equipment has been de-energized, use absorbent materials to contain oil.

Prevent contamination of drains, wetlands or waterways. Use minimal water and never wash oil into catch basins.

Stay alert for PCBs

Transformer oil may contain polychlorinated biphenyls (PCBs), a probable carcinogen banned in 1979. Most National Grid units are non-PCB (blue label).

Yellow PCB labels indicate concentrations ≥ 500 ppm, but assume all oil releases contain PCBs, even without labels. Follow departmental decontamination procedures and additional safety measures.

Firefighting tactics

Follow the 30/30/100 rule: stay 30 feet from energized equipment and use a 30-degree fog pattern at 100 psi.

- Extinguish burning oil with protein foam or water fog, never solid streams.
- If oil-filled electrical gear is burning, let it burn out unless directed otherwise by the utility or incident commander.

Stay alert for toxic smoke and energized lines after the fire.

