

Creosote Beam Treatment & Encapsulation Checklist

24/7 Remedial Services — PMII CMR + IICRC WRT/FSRT — Ottawa, Kingston & Eastern Ontario

This is the field checklist our restoration technicians follow when creosote-treated railway-tie beams, posts, or sill plates cannot be removed and must be encapsulated in place. Use it to prepare your basement, brief your restoration contractor, and confirm the scope covers everything an insurer, home inspector, or buyer will ask about.

1. Identify & document the beam

- Photograph every creosote-treated beam, post, sill plate, or joist end from multiple angles under bright light.
- Note beam dimensions, connection type (pocketed, bolted to lally column, sistered), and any visible crystalline tar bleed or oil weeping.
- Record ambient smell strength, and whether the odour intensifies with heat, humidity, or the HVAC running.
- Save the location on a rough basement floor plan — the encapsulation scope will reference it.

2. Do NOT do these things

- Do NOT sand, plane, or grind the beam — it aerosolizes PAH-laden dust throughout the house.
- Do NOT paint over creosote with latex or oil-based paint — it will not block phenolic outgassing and will bleed through.
- Do NOT spray bleach, vinegar, or household deodorizers — they mask nothing and add competing VOCs.
- Do NOT enclose the beam behind new drywall or a dropped ceiling before it is properly encapsulated.
- Do NOT let a general painter or handyman scope the work — creosote is EPA Group B1 (probable human carcinogen).

3. Safety & containment (pre-work)

- Shut off pilot lights, furnace, water heater, and gas fireplace — shellac primer carries a flammable ethanol carrier during cure.
- Isolate the work area with 6-mil polyethylene sheeting and a zippered decontamination airlock.
- Deploy a HEPA + activated-carbon air scrubber (e.g. AlorAir CleanShield HEPA 550) with negative pressure (min. -5 Pa) ducted externally.
- Confirm all workers wear half-face APR respirators with organic-vapour cartridges and Tyvek suits.
- Keep infants, seniors, pregnant occupants, and immunocompromised residents out of the home until final cure & ventilation.

4. Substrate preparation

- Wire-brush crystalline efflorescence and loose tar from beam faces, corners, and end grain.

- Wipe raw tar gloss with odourless mineral spirits — no aggressive solvents that leave a vapour footprint.
- HEPA-vacuum all particulate immediately after prep; do not use a household shop-vac.
- Inspect and photograph every square inch — encapsulation failures always start on the inch that was missed.

5. Dual-coat vapour encapsulation

- Apply two full 360° coats of Zinsser B-I-N white pigmented shellac primer.
- Respect a minimum 45-minute recoat window at 18–22 °C ambient.
- Cover end grain, connectors, bolts, pockets, and fastener heads — these are the leak points.
- Optional finish coat of low-VOC latex only after both shellac coats are fully cured.

6. Post-remediation verification

- Commercial extraction and manifested hazardous-waste disposal of saturated carbon media, wipes, and PPE.
- Post-remediation air sampling for TVOC, formaldehyde, and phenol via a third-party accredited lab.
- Confirm results are within Health Canada residential indoor-air guidelines before re-occupancy.
- Post-Remediation Verification (PRV) letter delivered on 24/7 Remedial Services letterhead, signed by a PMII CMR.

7. Documentation you should receive

- Pre-job photographic and moisture/VOC baseline report.
- Containment log with negative-pressure and HEPA runtime data.
- Product batch and lot numbers for every encapsulant used.
- Third-party post-remediation lab results (TVOC, phenol, formaldehyde).
- Itemized scope of work with an Xactimate-format breakdown available on request.
- Waste manifest and PRV letter on company letterhead.

8. When to call 24/7 Remedial Services

- Distinct tar or medicinal smell in a finished or unfinished basement, especially in summer.
- Home inspection report flagging phenolic odour, PAH concern, or historical railway ties.
- Pre-listing or pre-closing property in Ottawa, Kingston, or Eastern Ontario with a known creosote beam.
- Renovation, water-damage repair, or basement finishing project that will enclose a creosote beam.

Call our 24/7 dispatch: (855) 324-7356 | dispatch@247remedialservices.ca | 247remedialservices.ca/creosote-beam-encapsulation

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