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Styrene used in Cured-In-Place Pipe (CIPP) Relining

What is cured-in-place pipe (CIPP) relining?

The cured-in-place pipe (CIPP) relining process involves using a plastic resin within an existing pipe to create a new one. This process allows for the repair of sewer pipes without extensive excavation, minimizing disruption to local communities and businesses. Among other components, CIPP sewer relining utilizes a resin containing styrene, a substance which can produce strong, short-term odours that may be noticeable.

What is styrene?

Styrene is a clear, colourless liquid widely used in producing everyday products such as plastic packaging, countertops, disposable cups and containers, insulation, and more. Small amounts of styrene can be found in both outdoor and indoor air, primarily due to emissions from building materials, consumer products, vehicle exhaust and other sources. Styrene typically breaks down quickly in the atmosphere, usually within 1 to 2 days.

When heated, such as during the CIPP curing process, styrene releases a distinctive odour often likened to that of glue or plastic. This odour can be detected even at very low concentrations, far below thresholds associated with harmful health effects. Therefore, the presence of this odour does not necessarily indicate a harmful level of exposure.

What are the health concerns from exposure to styrene during CIPP sewer relining?

Under typical conditions, cured-in-place pipe (CIPP) sewer relining is not expected to cause harmful health effects for individuals living or working nearby. However, vapours from the CIPP curing process may sometimes enter buildings through windows, doors, foundation cracks, the pipes connecting homes to sewers, and gaps or holes in the ground.

Reactions to environmental odours can vary among individuals, and some people may experience symptoms due to the strong odours associated with nearby CIPP sewer relining. These symptoms usually go away quickly after the odour is gone.

Are there steps that I can take to minimize exposure to styrene odours during CIPP sewer relining?

People may notice an odour in the air when CIPP sewer relining is taking place nearby. Please carefully review all notices (i.e., Pre-Construction, Construction and/or Service Disruption Notices) that you receive from the City of Toronto and/or its contractors relating to the CIPP sewer relining and follow the instructions fully to reduce the risk of exposure to styrene odours. As an example, this may include the following advice:

- Maintain a safe distance from CIPP work sites.
- Close doors and windows to prevent outside odours from migrating indoors.
- Pour 1-2 litres of water down every drain (i.e., sinks, showers, bathtub, floor drains) to ensure a water barrier is present prior to the lining work.
- Do not continuously run your taps in order to maintain water levels in plumbing traps as doing so may allow odours to escape from the trap.
- Consider seeking fresh air if you detect a strong odour in your home during nearby CIPP sewer relining and contact the Field Ambassador or the contractor's emergency contact (from the Service Disruption Notice) for immediate assistance.

Who can I contact if I am concerned about exposure to styrene from CIPP work?

For questions about the CIPP sewer relining process, please contact **311** or see the contact information on the notices (i.e., Pre-Construction, Construction and/or Service Disruption Notices) that you received.

If you have specific concerns, or experience symptoms related to potential exposure to styrene you should contact your primary health care provider. For general questions about styrene and health, please contact Toronto Public Health at **416-338-7600**.