

Lemos, June

From: Annemarie <aweibel@mcn.org>
Sent: Monday, April 8, 2019 6:28 AM
To: Lee, Will; Morsell-Haye, Jessica; Lemos, June; Miller, Tabatha; Varga, Tom
Subject: my opposition to agenda item 3A on the agenda for the April 10, 2019 Public Works and Facilities Committee

To City Hall staff and City Council representatives,

I am aware that the topic 3a Receive Report Regarding the Use of Styrene-Based Resin for Cure-In-Place-Pipe (CIPP) Project, City Project 2019-03 will be discussed on April 10. I am not able to attend this meeting that is why I am sending you here my comments.

I am alarmed to read that the city already completed CIPP projects using styrene based resin in 2013, refurbished 850 feet of pipe on Alder and Main Street, and in 2016, refurbished approximately 3,200 feet of pipe, including sections of Bush and Alder Street without notifying the public or only the ones who asked to be notified by you.

I understand that the city's sewer collection system is very old and I understand that it is not feasible to tear up all the streets and replace all the pipes with new pipes.

I understand that some pipes are still old clay pipes. Clay pipes were an economical way for builders and sewer workers to create a main sewer line prior to 1980. Clay sewer pipes can typically last for 50 to 60 years. I understand that by using the resin you can add years to the old pipes whatever the chosen material was at the time they were installed.

You indicate that the new project would refurbish 5,000-7,000 linear feet of existing 6", 8" and 12" sewer mains in portions of Chestnut, Sanderson, Oak and Cedar Street.

You wrote:" The Department of Health and Human Services (DHHS), National Toxicology Program (NTP) listed styrenes as "reasonably anticipated to be a human carcinogen" in the report on Carcinogens, Twelfth Edition released on June 10, 2011.

Why is it that you chose to make a flyer with information from the Report on Carcinogens 12th Edition released on June 10, 2011? Why not use the 14th Edition released on November 3, 2016? Also the sentence you chose to print only addresses a part of the sentence I found on the web page. You wrote that styrene is listed as "reasonably anticipated to be a human carcinogen" whereas the web page indicates "Styrene is reasonably anticipated to be a human carcinogen based on limited evidence of carcinogenicity from studies in humans, sufficient evidence of carcinogenicity from studies in experimental animals, and supporting data on mechanisms of carcinogenesis."
<https://ntp.niehs.nih.gov/ntp/roc/content/profiles/styrene.pdf>

The web page also indicates that:"The Report on Carcinogens is a congressionally mandated, science-based, public health document that NTP prepares for the HHS Secretary.

Styrene producers sell styrene monomer to companies that use styrene to make various compounds and resins. Fabricators then process the resins into a wide variety of products (Cohen et al. 2002). Roughly 99% of the industrial resins produced from styrene can be grouped into six major categories: polystyrene (50%), styrene-butadiene rubber (15%), unsaturated polyester resins (glass reinforced) (12%), styrene-butadiene latexes (11%), acrylonitrile-butadiene-styrene (10%), and styrene-acrylonitrile (1%). Another minor category of use is unsaturated polyester resins (not reinforced) (Luderer et al. 2005).

What resin would be used by the city? How can we evaluate the toxicity of a resin when we do not know what resin the city would be using?

https://ntp.niehs.nih.gov/ntp/roc/content/process_508.pdf

Under the header Regulations you will find what several agencies proclaim:

Coast Guard, Department of Homeland Security

46 CFR 150 and 151 detail procedures for shipping styrene monomer and for shipping styrene monomer and various styrene co-polymers with incompatible mixtures.

Department of Transportation (DOT)

Styrene is considered a hazardous material, and special requirements have been set for marking, labeling, and transporting this material.

Environmental Protection Agency (EPA)

Clean Air Act

Mobile Source Air Toxics: Listed as a mobile source air toxic for which regulations are to be developed.

National Emission Standards for Hazardous Air Pollutants: Listed as a hazardous air pollutant.

New Source Performance Standards: Manufacture of styrene is subject to certain provisions for the control of volatile organic compound emissions.

Clean Water Act

Designated a hazardous substance.

Comprehensive Environmental Response, Compensation, and Liability Act Reportable quantity (RQ) = 1,000 lb.

Emergency Planning and Community Right-To-Know Act Toxics Release Inventory: Listed substance subject to reporting requirements.

Safe Drinking Water Act

Maximum contaminant level (MCL) = 0.1 mg/L.

Occupational Safety and Health Administration (OSHA) While this section accurately identifies OSHA's legally enforceable PELs for this substance in 2010, specific PELs may not reflect the more current studies and may not adequately protect workers.

Acceptable peak exposure = 600 ppm (5-min maximum peak in any 3 h).

Ceiling concentration = 200 ppm.

Permissible exposure limit (PEL) = 100 ppm.

Guidelines:

American Conference of Governmental Industrial Hygienists (ACGIH) Threshold limit value – time-weighted average (TLV-TWA) = 20 ppm.

Threshold limit value – short-term exposure limit (TLV-STEL) = 40 ppm.

Biological exposure indices: Mandelic acid plus phenylglyoxylic acid in urine, end of shift = 400 mg/g of creatinine; styrene in venous blood, end of shift = 0.2 mg/L.

National Institute for Occupational Safety and Health (NIOSH) Immediately dangerous to life and health (IDLH) limit = 700 ppm.

Short-term exposure limit (STEL) = 100 ppm.

Recommended exposure limit (REL) = 50 ppm.

From OSHA <https://www.osha.gov/SLTC/styrene/>

Health effects from exposure to styrene may involve the central nervous system and include complaints of headache, fatigue, dizziness, confusion, drowsiness, malaise, difficulty in concentrating, and a feeling of intoxication.

It seems to me this information needs to be shared with the company that would bid to get this job and they in turn need to share it with their workers (in the worker's native tongue) and it would need to be shared with the public. Which companies would be notified to bid?

Before you vote to put this job out for bid the public needs to be able to see what you would write in the "appropriate response plan" and what information workers would receive about styrene. You also mention that the contractor would need to monitor for Volatile Organic Compounds (VOC's). Where? How? This recommendation is not specific enough!

As styrene is highly flammable and easily ignited by heat, sparks, or flames, and its vapors may form explosive mixtures with air as a result of the formation of peroxides this information needs to be included in the appropriate response plan.

Your flyer does not include any web pages where people can find more information.

Your flyer does not give detailed information where exactly you found the information you list. You mentioned in your flyer guidelines from NASSO from 2017.

I found this information: Cured-in-Place Pipe (CIPP) was introduced in 1971 as an alternative to digging up and replacing sewers, and it was introduced to North America in 1976. Now, approaching 50 years since the introduction of CIPP, hundreds of millions of feet of rehabilitated pipe have been installed around the world.

Should we still be using this technology?

Searching for information I found these articles which you should read before you adopt the CIPP Project using styrene based resin.

<https://www.nassco.org/news/cuire-study-finds-cipp-reports-non-conclusive>

<https://www.nassco.org/news/cipp-emissions-study-request-proposal-0>

<https://www.nassco.org/news/cuire-awarded-formal-review-cured-place-pipe-cipp-safety>

https://www.cleaner.com/online_exclusives/2017/09/university-study-questions-safety-of-steam-cured-pipe-lining

For example this link SPECIFICATION GUIDELINE for Cured-In-Place Pipe Point Repair (CIPP-PR) Sectional Lining from the NASSO web page indicates that

3.) To minimize community risk and disruption, only "No VOC" resins shall be permitted for use, in order to control the risk of noxious odors such as styrene.

Also the SPECIFICATION GUIDELINE for Main-to-House, Cured-In-Place Pipe (CIPP), Service Lateral and Connection (SL&C) Seals without the use of a Clean-Out from the NASSO web page indicates that

7.) To minimize community risk and disruption, only "No VOC" resins shall be permitted for use; without access to a clean-out for venting the processing steam, "No VOC" resins are mandatory, especially with steam cured liners, in order to control the risk of noxious odors from entering buildings or from adversely impacting passersby.

1.) The SL&C Seal is normally constructed without excavation by the curing of a "No VOC" resin-impregnated, flexible laminate installed into the existing service lateral, lapping over the main-line pipe, and thereby sealing the connection from the main-line pipe to the lateral pipeline.

e.) ensure that noxious odors do not enter a building so as to limit community risk and disruption, such as with the required use of "no VOC"

resins. [Note: VOC emitting resins will not be approved as they ALWAYS require a clean-out to avoid the risk of noxious odors entering a building through a dry wastewater trap, and because noxious odors would also be emitted from the clean-out.]

SPECIFICATIONS FOR INSTALLATION OF UV GRP CURED-INPLACE-PIPE (CIPP) (by Reline America) make it clear that they do not use styrene.

Also [https://www.interplastic.com/UserFiles/File/ECO%20CIPP\(2\).pdf](https://www.interplastic.com/UserFiles/File/ECO%20CIPP(2).pdf)

lists a product that does not contain styrene.

<http://interplastic.com/p-cipp.php>

At a time where science changes so fast I am speechless when I read that the City of Fort Bragg is listing in their flyer information from a 1992 study by the European Center for Ecotoxicology and Toxicology of Chemicals (ECETOC). They apparently in 1992 concluded that "the carcinogenic potential of styrene, if one exists at all, is rated so low that occupational or environmental exposure to styrene is unlikely to present any carcinogenic hazard to man".

Why do you use this information along with the information that styrene is "reasonably anticipated to be a human carcinogen"?

To list the following does not make using styrene based resin with the CIPP Project less toxic. "Small amounts of styrene are produced naturally by plants, bacteria and fungi. Low levels of styrene occur naturally in a variety of foods, such as fruits, vegetables, nuts, beverages, and meats. Styrene is also present in combustion products such as cigarette smoke and automobile exhaust, and is released during the use of home copiers. Indoor air often contains higher levels of styrene than outdoor air."

Apparently it can now also be found in every mother's breast milk!

You indicate: "Once in your body, styrene is broken down into other chemicals, which leave your body in the urine within a few days. The most common health problems in workers exposed to styrene involve the nervous system." Where did this information come from? How long were these workers tested? It contradicts the information in the Report on Carcinogens 12th Edition released on June 10, 2011 that lists styrene as "reasonably anticipated to be a human carcinogen."

You wrote: "The VOC monitoring device will be located within ten (10) feet of manholes (insertion points) and read every half hour."

Measurements would need to be conducted before, during, and after curing at the termination manhole, as well as various locations in the surrounding outside area and inside nearby buildings. Worker exposure would also need to be measured via personal exposure monitors. Finally, dispersion modeling would need to be conducted to estimate compound concentrations at a large number of locations for a wide variety of meteorological conditions. Measured and modeled concentrations would need to be compared to appropriate health-based action levels to determine if any potential health risks exist for workers or citizens in the surrounding community. Even by doing all this the following study indicates that the information will not be conclusive, not exact or faulty.

<https://www.nassco.org/news/cuire-study-finds-cipp-reports-non-conclusive>

I am asking you to go back to the drawing board and research the newest available scientific information instead of updating an old flyer and announcing the lining of city pipes with a styrene based resin risking the health and safety of workers and citizens. No mitigation measures nullify being exposed to a possible cancer causing agent!

The Mendocino County Board Of Supervisors on June 27, 2006 adopted the Precautionary Principle Policy. See complete information

<https://www.mendocinocounty.org/home/showdocument?id=1926>

Here are the main points:

Where there are reasonable grounds for concern, the precautionary approach to decision making is meant to help reduce harm by triggering a process to select the least potential threat. The essential elements of the Precautionary Principle approach to decision-making include:

1. Anticipatory Action: There is a duty to take anticipatory action to prevent harm. Government, business, and community groups, as well as the general public, share this responsibility.

2. Right to Know: The community has a right to know complete and accurate information on potential human health and environmental impacts associated with the selection of products, services, operations or plans. The burden to supply this information lies with the proponent, not with the general public.
3. Alternatives Assessment: An obligation exists to examine a full range of alternatives and select the alternative with the least potential impact on human health and the environment, including the alternative of doing nothing.
4. Full Cost Accounting: When evaluating potential alternatives, there is a duty to consider all the reasonably foreseeable short and long-term costs and benefits to public as well as private sectors of the community, even if such costs are not reflected in the price. Some of these costs and benefits may include raw materials, manufacturing, transportation, use, cleanup, eventual disposal, labor, energy, health, safety, and job-creation.
5. Participatory Decision-Making Process: Decisions applying the Precautionary Principle must be transparent, participatory, and informed by the best available information. The County will make a reasonable effort to include the public in an appropriate manner when making decisions that may affect the environment, health, and quality of life.

When will the City of Fort Bragg adopt such a policy or at least be guided by the same principles? I urge you to take this issue seriously.

We have a high cancer rate in this county/city. Toxins from the mill site, from the logging companies, and other industry have seriously impacted the citizens of our county/city. It is time to study this issue thoroughly!

Once you come up with a better solution please inform every household in writing on Chestnut, Sanderson, Oak and Cedar Streets in English and Spanish about the upcoming procedure which will need to include an updated CIPP Project Safety Information flyer.

I do not understand that the Department wants to issue a Notice Inviting Bids (NIB) on April 11, 2019 (a day after the Public Works and Facilities Committee meeting) for the 2019 CIPP project which intends to refurbish 5,000-7,000 linear feet of existing 6", 8" and 12" sewer mains without needing to make a recommendation to the City Council for their approval. Nowhere is it indicated how much this would cost? I received the information about this meeting on April 5. How should the busy city council representatives have time to research this issue on time or the citizens of this area?

Where is the space on your web page where you list upcoming issues?

Where are the reports from the city manager addressing upcoming issues?

I suggest that you start these again.

I also want to bring to your attention that the attachment listed in the agenda is not readable as it prints both pages of the flyer on one page.

Page 14 & 15 in your attached document provide readable information.

The following links listed in your agenda under References do not work:

<https://www.cdc.gov/niosh/idlh/100425.html>

<https://pubchem.ncbi.nlm.nih.gov/compound/styrene#section=Clinical-Laboratory-Methods>

This seems to be a good resource you might like as well:

<https://www.atsdr.cdc.gov/toxguides/toxguide-53.pdf>

The increasingly competitive landscape globally forces the chemical companies to focus on innovation and particularly on the development of Green Chemistry, which is becoming crucial for the overall future development of the companies. In order to increase their profit, it is important for manufacturers within the chemical industry not only to cut their costs, but also to ensure that their processes and products conform with the pressing environmental issues. According to a recently conducted research about the global styrene market, it is projected to reach approximately 33,425 thousand tons by the end of 2023.

The City of Fort Bragg should hire a company that is able to Cure in Place the City's sewer collection system without using cancer causing styrene based resin.

Thanks for reading my comments and contemplating the issue.
Sincerely, Annemarie Weibel