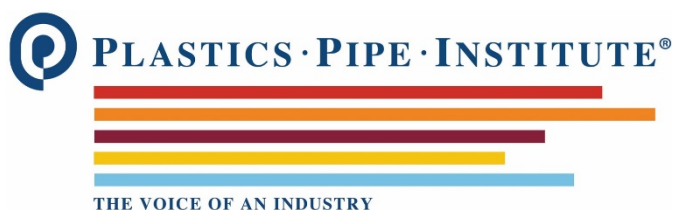


INVESTIGATION OF BENZENE IN DRINKING WATER FOLLOWING THE “CAMP FIRE” IN PARADISE, CA

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Foreword

This technical report was developed and published with the technical help and financial support of the members of the Plastics Pipe Institute (PPI). These members have shown their commitment to developing and improving quality products by assisting standards development organizations in the development of standards, and also by developing design aids and reports to help engineers, code officials, specifying groups, contractors and users.

The purpose of this technical report is to report on PPI's investigation into reports of benzene in drinking water following the "Camp Fire" in Paradise, CA.

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1.0 INTRODUCTION

The **2018 Camp Fire** was the deadliest and most destructive wildfire in California history, and the most expensive natural disaster in the world, in terms of insured losses, that year. Named after Camp Creek Road, its place of origin, the fire started on November 8, 2018 in Northern California's Butte County. According to [Cal Fire](#), the fire was ignited by a faulty electric transmission line in the Pulga area¹.

The unfortunate combination of strong winds, low humidity, and warm temperatures promoted this fire and caused extreme rates of spread, creating an urban firestorm in the densely populated foothill town of Paradise, with a population estimated at 26,800 before the fire.

The fire covered an area of **153,336 acres** (62,053 ha), destroyed roughly **19,000 structures**, and caused at least **85 civilian fatalities**, with most of the damage occurring within the first four hours. The fire travelled through the entirety of Paradise within 60 minutes. Temperatures are estimated by Cal Fire to have reached **1,600°F** (870°C). See **Figures 1, 2 and 3** for scenes from Paradise after the fire.

This Technical Report will explain PPI's investigation into reports of Benzene in drinking water following the Camp Fire in Paradise, CA.

Topics discussed in this document include:

- Section 2.0: Impacts of the Camp Fire to Water Quality
- Section 3.0: Current Situation – Water Quality in Paradise
- Section 4.0: PPI Investigation
- Section 5.0: PPI Findings
 - o 5.1 Paradise before the Fire
 - o 5.2 Effects of the Fire
 - o 5.3 Impacts to Water Pipelines
- Section 6.0: Path Forward in Paradise
- Section 7.0: Conclusion

¹ CalFire (May 15, 2019) *CALFIRE Investigators Determine Cause of the Camp Fire*
https://www.fire.ca.gov/media/5121/campfire_cause.pdf