

August 22, 2019

**CERTIFIED MAIL NO.  
RETURN RECEIPT REQUESTED**

Junya Inoue, President  
Water Gremlin Company  
4400 Otter Lake Rd  
White Bear Township, MN 55110-3757

RE: Administrative Order  
Water Gremlin Co, White Bear Township, Ramsey County

Dear Mr. Junya Inoue:

Enclosed with this letter is an Administrative Order (Order). Upon receipt of this order Water Gremlin is prohibited from operating and must immediately cease all solvent-based coating operations.

Please contact Jennifer Carlson at 651-757-2538 or [jennifer.m.carlson@state.mn.us](mailto:jennifer.m.carlson@state.mn.us), if you have any questions regarding this Administrative Order.

*Jeff J. Smith*

*This document has been electronically signed.*

Jeff J. Smith  
Division Director  
Industrial Division

JC/JS

Enclosure

cc: Colin O'Donovan, Attorney General's Office (w/enclosure)  
Leslie Fredrickson, Attorney, MPCA (w/enclosure)  
Deb Klooz, MPCA (w/enclosure)  
Jennifer Carlson, MPCA (w/enclosure)  
Cory Boeck, MPCA (w/enclosure)  
Brent Rohne, MPCA (w/enclosure)  
Sarah Kilgriff, (w/enclosure)  
Ralph Pribble, MPCA (w/enclosure)  
Activity ID NON20180001 @ 2005



**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**  
**Water Gremlin Company**

**ADMINISTRATIVE ORDER**

This Administrative Order (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to Water Gremlin Company (Water Gremlin) pursuant to Minn. Stat. § 116.07, subd. 9 and § 115.071, subd. 1.

**FINDINGS OF FACT**

**Water Gremlin Is Actively Releasing A Toxic Substance In Violation Of Minnesota Law.**

1. Water Gremlin is a domestic corporation and operates a lead metal fabrication facility (Facility) located at 4400 Otter Lake Road, White Bear Township, Ramsey County, Minnesota.
2. Water Gremlin Facility emits air contaminants that are regulated under Minnesota law to prevent pollution and harm to the citizens of Minnesota. See Minn. Stat. §§ 115 and 116.
3. Minnesota Statutes Section 116.081 makes it “unlawful for any person to construct, install or operate an emission facility until plans therefor shall have been submitted to the agency, and a written permit therefor shall have been granted by the agency.” Minn. Stat. § 116.081, subd. 1.
4. Water Gremlin submitted plans to operate in conformance with Minnesota law and was issued an air permit by the MPCA in 2006 to operate its Facility under strict control limits, including limiting all emissions from their coating operations to a single emissions stack unit. A stack is an emissions point at a Facility.
5. On March 1, 2019 the MPCA entered into a Stipulation Agreement (Agreement) with Water Gremlin to resolve known violations relating to Water Gremlin’s release of trichloroethylene (TCE) based solvents into the environment as part of its coating operations at its Facility.
6. The Agreement allowed Water Gremlin to resume limited coating operations under an Alternative Operating Scenario, subject to strict control limits and required Water Gremlin to complete several corrective actions.
7. The corrective actions included Water Gremlin ceasing the use of the solvent containing TCE, which is a hazardous air pollutant (HAP) and using a replacement solvent called FluoSolv WS (of which the primary component is trans-1,2-dichloroethylene (tDCE)), as well as requiring Water Gremlin to conduct a remedial investigation and sampling at its Facility.
8. The Agreement did not allow Water Gremlin to violate its air permit requirement to direct all coating emissions to the control stack. Directing all coating emissions to the control stack ensures that any release of tDCE into the environment to be discharged only through an intended channel. It also makes it possible for MPCA to identify and model limitations that would be protective of the human health and the environment. The MPCA established limits for tDCE emissions for the Alternative Operating Scenario based only on its modeling of emissions from the control stack.
9. Water Gremlin never submitted plans to operate by releasing pollution below its Facility. Neither Water Gremlin’s permit nor the Agreement allows for any pollution control or monitoring

equipment below the Facility floor because all tDCE releases are to be channeled through its control stack.

10. Water Gremlin has produced data showing an active, unpermitted release from the Facility and admitted the same to the MPCA.

**Water Gremlin's Remedial Investigation Report Shows A Release Of Contamination To The Environment But Water Gremlin Continued to Operate Without Informing The MPCA.**

11. On June 20, 2019, Water Gremlin received the sampling results of its remedial investigation.
12. The results show Water Gremlin's Facility is releasing tDCE to the soil vapor beneath its plant and possibly into adjacent areas rather than through Water Gremlin's control stack as required.
13. Upon receiving the sampling results on June 20, 2019, Water Gremlin failed to immediately report the release of tDCE to MPCA or take corrective actions.
14. Any deviation from a permitted activity that has the potential to endanger human health or the environment is required to be reported to the MPCA within two working days and identify what corrective actions have been taken to terminate the deviation. Minn. R. 7019.100, Subp. 1.
15. Water Gremlin failed to report the active tDCE release within two days, did not stop the tDCE release, and instead continued to operate its coating equipment with the tDCE solvent.
16. Water Gremlin submitted the data to the MPCA 40 days after receipt, when it provided its RI Report to the MPCA on July 30, 2019.
17. The MPCA immediately analyzed the RI Report and met with Water Gremlin on August 6, 2019.

**Water Gremlin Admits That Its Coating Operations Are Causing An Active Release.**

18. At the meeting, Water Gremlin admitted that its coating operations resulted in an ongoing and active release of tDCE below the Facility, and not all coating emissions were being released through its stack as required under the permit and Agreement.
19. Water Gremlin also admitted that it did not know the mechanism, extent, or magnitude of the active tDCE release. Water Gremlin also admitted that it did not know how the tDCE was interacting with the hazardous substance (TCE) also found to be under its Facility. Water Gremlin stated that it was exploring options to stop the tDCE release, but had not yet determined how to do so.
20. On August 14, 2019, the MPCA issued Water Gremlin a letter setting out its significant concerns that tDCE was discovered in the soil vapor below the Facility, and requested that the Water Gremlin immediately cease coating operations that emit tDCE until corrective measure to prevent the ongoing release of tDCE to the soil vapor was completed and proved to be effective.
21. Water Gremlin did not voluntarily cease its tDCE coating operations. Water Gremlin's solvent usage records, submitted to the MPCA daily, indicated that Water Gremlin continued to operate its coating equipment after the MPCA's request to cease was issued.
22. On August 16, 2019, Water Gremlin submitted a Vapor Mitigation Interim Response Action Plan (Plan). Water Gremlin did not include a timeframe for stopping the ongoing and active release of tDCE below the Facility. In fact, Water Gremlin did not agree to stop the ongoing release. Water Gremlin stated it would seal some cracks in the floor, but intended to continue releasing tDCE below the Facility and simply use a mitigation system indefinitely to move the TCE- and tDCE-impacted soil vapor from beneath the facility into the air.

23. On August 19, 2019 the MPCA Commissioner visited the Facility and repeated MPCA's request that Water Gremlin immediately cease coating operations using tDCE until the active release was resolved and shown to be effective.
24. On August 20, 2019, the MPCA received a letter from Water Gremlin indicating it would temporarily cease coating operations with tDCE by Friday, August 23 at 6:30 a.m., while it installs a sub-slab depressurization system and intended to begin coating operations again on Wednesday, August 28 at 6:30 a.m. This letter does not address the concerns raised by the MPCA, nor indicate how Water Gremlin will stop the ongoing release.
25. On August 22, 2019, the MPCA received a letter from Water Gremlin stating that they will begin investigating options to stop the release, however it has no intentions of ceasing FluoSolv WS coating operations prior to implementing those options.
26. Water Gremlin's continued operation in this manner is not allowed under its permit or the Alternative Operating Scenario in the Agreement.
27. To date, Water Gremlin continues to operate and to engage in the unpermitted, unauthorized, and unlawful release of tDCE.

**The MPCA Is Extremely Concerned That Water Gremlin Is Actively Releasing tDCE And Has Not Already Stopped The Release.**

28. Water Gremlin's remedial investigation should not have shown any tDCE concentrations in the soil vapor. Its presence in the soil vapor is alarming because all emissions in the coating room are required to be emitted through the stack, and not under the Facility.
29. The amount of tDCE discovered is of significant concern because Water Gremlin has only been using this new solvent since March 2019.
30. The RI Report also shows there is contamination of hazardous substances at the Facility, including TCE in groundwater and soil vapor and lead in surface water, soil, and sediment.
31. Water Gremlin has no control over the active release of tDCE.
32. Water Gremlin does not know the extent and magnitude of the unauthorized release from its Facility.
33. Based on the data Water Gremlin has provided, however, the MPCA and the Minnesota Department of Health (MDH) have significant concerns. Until receiving Water Gremlin's RI Report, this release was unknown to the MPCA. To date, Water Gremlin has provided only minimal data on the release. But even the limited data produced shows the presence of both tDCE and TCE exceeds intrusion screening values (ISVs) and that more evaluation is needed to ensure public health and the environment are protected.
34. ISVs are chemical-specific, risk-based inhalation screening criteria. An ISV is defined as a concentration of a contaminant in indoor air that is unlikely to harm human health. ISVs are used to determine when action may be needed to protect health.
35. Expedited ISVs (EISVs) have been developed in order to help determine if expedited actions are needed to protect health. Exceedances of EISVs indicate an increased potential for exposure risk from vapor intrusion.
36. ISVs and EISVs are calculated by MDH based on the U.S. Environmental Protection Agency (EPA) Superfund risk assessment methodology and default parameters. These exposure parameters are combined with toxicity values to calculate the ISVs.

37. In response to the detections of tDCE, MDH developed site-specific ISVs for tDCE. The site-specific ISV for tDCE is 8,300 micrograms per liter (ug/L) and the allowable EISV is 25,000 ug/L.
38. The Report shows that 15 out of 25 samples had tDCE concentrations exceeding the 33x ISV. Of those samples, 7 exceeded the heightened, 33x EISV. 33x is a multiplier applied to the ISV for attenuation of the contaminant through a building floor.
39. The allowable ISV for TCE is 230 mg/L and the allowable EISV is 700 mg/L.
40. The Report also shows that 20 out of 25 samples had TCE concentrations exceeding the 33x ISV. Of those samples, 17 exceeded the heightened, 33x EISV.
41. Because the samples exceeded the 33x industrial EISV, the MPCA's best management practices require an expedited action to install a vapor intrusion mitigation system to begin as soon as possible, and no later than 30 days after receiving the Report on June 20, 2019.
42. Not only did Water Gremlin fail to install a mitigation system by July 20, 2019, Water Gremlin had not informed the MPCA of the Report results by that date. Instead, Water Gremlin continued coating and continued releasing tDCE.
43. At the same time that Water Gremlin knew about its on-going release of tDCE contamination to the environment and failed to report it, Water Gremlin was communicating with the MPCA and seeking to delay testing its control equipment.

#### **The Ongoing Release Of tDCE Is A Public Health Concern.**

44. When Water Gremlin notified the MPCA that it was going to switch from a TCE solvent to a tDCE solvent, the MPCA asked the MDH to develop a site-specific inhalation Risk Assessment Advice (RAA) for tDCE emissions in the ambient air around the Facility.
45. MDH determined that the site-specific inhalation RAA for tDCE emissions from the Facility is seventy micrograms per cubic meter (ug/m<sup>3</sup>). This is a chronic lifetime exposure value that is expected to be protective of human health.
46. The MPCA used this RAA in computer modeling to determine how much tDCE could safely be emitted at the Facility from the control stack. The modeling included many factors, such as stack location, stack height, the velocity and temperature of the emissions, the maximum potential emissions from the coating machines, weather conditions such as wind speed and direction, and other factors.
47. Based on the modeling results, the MPCA determined that as long as the tDCE emissions remained below 90 tons per year (tpy), as a 12 month rolling sum, Water Gremlin's operation should not cause an exceedance of the tDCE RAA.
48. This modeling did not include unpermitted releases, such as the release that will occur at an additional mitigation stack, with a different stack height, at a different location than the main stack, and with an unknown amount of tDCE emitted.
49. The MPCA cannot perform modeling to determine if the tDCE limit needs to be re-calibrated to protect the environment and public health until the additional amount of tDCE emissions, and mitigation stack parameters, are determined.
50. Water Gremlin's ongoing, uncontrolled emission below its Facility renders MPCA's prior modeling not appropriate for determining a limit to protect human health or the environment.

51. Because Water Gremlin has a significant level of TCE and tDCE impacted soil vapor below the Facility, the MPCA is requiring it to begin mitigation of the Facility as soon as possible.
52. It is unknown how much TCE or tDCE mass is below the Facility, what the mitigated TCE and tDCE emissions values will be through the mitigation venting system, or for what length of time the mitigation system will be in place.
53. Until mitigation is conducted, continued release of tDCE may result in an expanding area of soil vapor contamination, with possible migration of soil vapors towards neighboring properties. Until additional samples are taken and evaluated it is not known if TCE or tDCE has already migrated.
54. The ongoing release of tDCE through the concrete floor slab is extremely problematic and a public health concern. It creates a potential exposure pathway for workers at the Facility as well as residents of the surrounding community that is difficult to control or remediate once the release has occurred.

### **CONCLUSIONS**

1. Minnesota Statutes Section 116.081 makes it “unlawful for any person to construct, install or operate an emission facility...until plans therefor shall have been submitted to the agency, and a written permit therefor shall have been granted by the agency.” Minn. Stat. § 116.081, Subd. 1.
2. Water Gremlin’s permit requires it to capture all its emissions from its coating operations and to emit them through a single control stack.
3. Water Gremlin’s RI report shows, and Water Gremlin has admitted, that vapors from solvents used in its coating operations are released below the Facility rather than through its control stack as required under its permit.
4. Water Gremlin has released TCE and tDCE at its Facility in violation of Minnesota Statutes Section 116.081.
5. There is an active, unpermitted release of tDCE by Water Gremlin at its Facility in violation of Minnesota Statutes Section 116.081.
6. Part 18 of the Agreement requires that Water Gremlin “must comply with all applicable federal, state, and local laws” and “must also comply with all applicable permits” unless “the MPCA has specifically authorized a different compliance method in Part 10” of the Agreement.
7. The MPCA did not authorize this release from the Facility under the Agreement. Water Gremlin had not even informed the MPCA of the release until after the Agreement was executed. Water Gremlin’s release also violates the Agreement.
8. The Agreement allows the MPCA Commissioner to prohibit Water Gremlin from continuing to resume coating operations allowed under the Alternative Operating Scenario if the MPCA Commissioner determines that it is necessary to protect human health, safety, or the environment.
9. Water Gremlin has known about the release since June 20, failed to immediately report the release to the MPCA, and has not stopped the release.
10. Water Gremlin has not provided data and information sufficient to allow the MPCA to model the effects of Water Gremlin’s release on public health or the environment.
11. To protect the public health, safety, and the environment it is necessary to prohibit Water Gremlin from continuing to operate under the Agreement’s Alternative Operating Scenario until it ceases the

active release, provides data sufficient to show that the release will not continue, and provide data sufficient for MPCA to model all emissions at the Facility.

**ORDER**

**NOW, THEREFORE, IT IS ORDERED:**

1. Upon receipt of this order Water Gremlin is prohibited from operating and must immediately cease all solvent-based coating operations. Within 24 hours of receipt of this Order Water Gremlin must provide written documentation to the MPCA confirming compliance.
2. Water Gremlin is prohibited from continuing its solvent based coating operations until corrective measures to prevent additional tDCE emissions below the Facility are approved by the MPCA, completed, and confirmation of the effectiveness of the corrective measures has been determined by the MPCA.
3. Water Gremlin is required to conduct sub-slab mitigation and conduct testing to confirm the effectiveness of that mitigation, and submit all testing results to the MPCA within 24 hours of their receipt.
4. Water Gremlin is required to continue remediation sampling in order to determine the extent and magnitude of all media contamination, and submit all testing results to the MPCA within 24 hours of their receipt.

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by Water Gremlin if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order is not an exclusive action or remedy by the MPCA, and it does not limit in any way the MPCA's authority to bring an enforcement action against or to seek and collect penalties from Water Gremlin. This Order is issued to require immediate action to correct violations, and it does not limit or preclude any other action, including the issuance of further orders, pursuit of injunctive or other relief, or commencement of enforcement actions and collection of penalties.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**



Laura Bishop  
Commissioner

8-22-2019

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