MINNESOTA POLLUTION CONTROL AGENCY

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January 17, 2020

CERTIFIED MAIL NO. 7007 3020 0000 0965 4454
RETURN RECEIPT REQUESTED

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

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

Dear Mr. Junya Inoue:

The enclosed Administrative Order (Order) is being issued by the Minnesota Pollution Control Agency (MPCA) to Water Gremlin Company.

The Order requires Water Gremlin Company to complete the specified actions listed in the Order by specified dates.

Please contact Jennifer Carlson at 651-757-2538 or at Jennifer.M.Carlson@state.mn.us, if you have any questions regarding this Order.

Sincerely,

Jeff J. Smith

This document has been electronically signed.

Jeff J. Smith
Division Director
Industrial Division

JJS/JC:se

Enclosure

cc: Colin O'Donovan, Attorney General's Office (w/enclosure)
Peter Surdo, 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, MPCA (w/enclosure)
Ralph Pribble, MPCA (w/enclosure)
Activity ID NON20200001 @ 2005

STATE OF MINNESOTA

Minnesota Pollution Control Agency

In the Matter of: **ADMINISTRATIVE ORDER**

Water Gremlin Company

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 Minn. Stat. §115.071, subd. 1.

FINDINGS OF FACTS

1. Water Gremlin is a domestic corporation that operates a lead metal fabrication facility (Facility) located at 4400 Otter Lake Road, White Bear Township, Ramsey County, Minnesota.
2. On August 22, 2019, the MPCA issued an Administrative Order (the August 22, 2019 Order) to Water Gremlin.
3. The August 22, 2019 Order required Water Gremlin to immediately cease all VOC coating operations, and to submit written documentation that it had done so. Water Gremlin confirmed in writing that it ceased operating its coaters upon receiving the Order that same day.
4. The August 22, 2019 Order prohibited Water Gremlin from operating VOC coating operations until corrective measures to prevent additional tDCE emissions from migrating from the coating rooms to the soil vapor beneath the Facility had been approved by the MPCA, completed, and determined to be effective.
5. On August 22, 2019, Water Gremlin proposed some corrective measures, such as lowering the vents inside the VOC coater enclosures to better capture the heavier-than-air tDCE emissions, converting some VOC coaters to water based coating, removing some VOC coaters from its Facility, sealing the coating room floors, and installing floor pans beneath the VOC coaters.
6. On August 27, 2019, Water Gremlin provided a diagram of stainless steel floor pans that it proposed to install beneath the VOC coaters at its Facility. Water Gremlin stated that the floor pans would eliminate the exposure of the concrete floor beneath the VOC coaters to tDCE vapors.
7. On August 27, 2019, MPCA staff visited the Facility. The MPCA confirmed that Water Gremlin had completed the proposed lowering of the air vents inside the VOC coater enclosures toward the floor, and constructed an additional lowered air vent in the middle of the main coating room. The MPCA also confirmed that Water Gremlin was not operating the VOC coaters, and was only operating the water-based coaters. Water Gremlin also stated during this inspection that it would like to convert more of the VOC coaters to water based coaters.
8. On August 30, 2019, the MPCA sent a letter stating that Water Gremlin's proposed corrective measures did not contain enough information for the MPCA to evaluate the proposed corrective measures and requested a Work Plan that included additional information.

9. The MPCA also required Water Gremlin to conduct additional soil vapor sampling near its property line, in order to determine if tDCE in the soil vapor was migrating off-site at a concentration above 33 times (33X) the residential intrusion screening values (ISVs). Concentrations above this value would require Water Gremlin to further define the vapor intrusion area of concern (concentrations above 33X residential ISVs) offsite into the residential neighborhood.

10. Water Gremlin completed the property line soil vapor sampling on August 28, 2019, and the MPCA received the analytical results of the soil vapor samples on August 29, 2019. No VOCs were detected above 33X residential ISVs in the soil vapor samples collected at the property line. Therefore, further definition of the vapor intrusion area of concern beyond the Water Gremlin property line to the west, north, and northeast, is not required at this time.

11. On August 31, 2019, Water Gremlin sent a letter stating that it installed and was operating a vapor mitigation system to address the vapor intrusion risk identified in the soil vapor beneath the building, and that it was capable of capturing tDCE emissions that might migrate from the VOC coating operations to the soil vapor beneath the Facility. Water Gremlin's environmental consultant, Wenck, also installed a carbon filtration system on the mitigation system air discharge to treat the soil vapors prior to discharging them. Wenck provides monitoring data to the MPCA on an MPCA-approved schedule.

12. On September 4, 2019, MPCA staff accompanied Minnesota Department of Health (MDH) staff to the Facility in order to conduct a visual inspection of the stainless steel floor pans and verify that VOC coating operations were not occurring.

13. During this visit, MPCA staff identified an accumulation of reddish material on the concrete floor beneath a VOC coater. Later that same day, the MPCA notified Water Gremlin that it must immediately contain and recover all of the spilled material under the VOC coating equipment, notify the Minnesota Duty Officer of the spill, notify the MPCA when this was completed, and document how the spilled material was managed.

14. On September 5, 2019, Water Gremlin notified the MPCA that it was cleaning up the spill, and that it was an accumulation of dried resins resulting from operation and maintenance over a long period, perhaps 15 years, and that it would be disposed of as hazardous waste. The MPCA required Water Gremlin to investigate if similar spills had occurred beneath other coaters, and to submit photographs of the spills before, and after cleanup.

15. On September 6, 2019, MPCA staff attended a Ramsey County hazardous waste inspection of the Facility. During this inspection, it was confirmed that Water Gremlin had cleaned up the spill material beneath several VOC coaters and was in the process of re-painting the floors beneath those coaters. During this inspection, it was discovered that the VOC solvent distiller in the chemical storage room had TCE and tDCE solvent liquid in the spill pan. Additionally, the solid hazardous waste barrel compactor had residual dried TCE and tDCE solvent material on the floor. Water Gremlin stated that historic VOC solvent spills have occurred utilizing its procedure to fill and empty the VOC distillation unit.

16. On September 9, 2019, Water Gremlin supplied photographic documentation of the clean-up and confirmed that seven VOC coaters had TCE and tDCE contaminated coating material spilled onto the concrete floor beneath the coaters.

17. That same day, Water Gremlin notified the MPCA that it began installing the stainless steel floor pans beneath VOC coaters at its Facility.

18. Also that same day, Water Gremlin submitted a proposed Work Plan, subject to MPCA approval, outlining proposed and completed corrective measures.

19. On September 12, 2019, MPCA staff attended a follow-up Ramsey County hazardous waste inspection at the Facility. This inspection related to, among other things, the spills under the VOC coaters and engineering problems that led to spills of hazardous waste in the coating rooms and chemical storage rooms. During the course of this meeting, Water Gremlin informed MPCA that the main coating room doors had been removed so that mitigation equipment could enter the Facility, and that the negative pressure alarm system was not alerting as expected. Water Gremlin is required under its current air permit to maintain the coating rooms under negative pressure, to ensure that all VOC emissions are routed to the control equipment. If the room was to become positively pressurized, an alarm would sound and Water Gremlin would have to correct whatever caused the positive pressure. Water Gremlin stated that the negative pressure alarm only sounded twice when the main coating room doors were removed. This means, Water Gremlin explained, that even with the doors removed, the main coating room maintains negative pressure, and opening and closing the doors on a regular basis does not cause the room to become positively pressurized.

20. After reviewing the Work Plan and visiting the Facility, the MPCA determined that Water Gremlin's proposed corrective measures were inadequate and immediately began drafting corrective measures that would be required if VOC coating operations were allowed to resume.

21. On October 7, 2019, seven additional sub-slab samples were collected from the main coating room. The mitigation system had been running for 37 days and tDCE had not been used at the Facility since August 22, 2019. Concentrations of tDCE in six of the sub-slab samples were above the industrial ISV and one of the sub-slap samples was above the 33X industrial ISV. The presence of tDCE in these samples at these elevated levels after 37 days of mitigation, and no active use of tDCE material at the Facility, is indicative of an ongoing source of tDCE in the subsurface.

22. The MPCA has also received the analytical results from the ongoing vapor mitigation system discharge monitoring. The analytical results indicate that the carbon filters are treating the majority of both TCE and tDCE emissions prior to being discharged to the atmosphere. All VOC emissions at the Facility, including VOC emissions from the vapor mitigation system, will be evaluated as part of the air toxics analysis that is part of the review of Water Gremlin's the air permit application.

23. On October 15, 2019, the MPCA received groundwater and soil sampling results for the samples collected beneath the Facility on October 4 and 7, 2019. These results demonstrate that both TCE and tDCE have contaminated the groundwater and soil beneath the Facility. The detections of tDCE in the soil and groundwater beneath the main coating room are indicative of a direct release of tDCE to the subsurface.

24. On September 25, 2019, and October 3, 2019, Water Gremlin conducted total enclosure testing on its three coating rooms in order to determine if its current ventilation system is adequate at maintaining negative air pressure, to ensure that all of the VOC emissions generated from VOC-coating operations will be captured and routed to the control equipment. MPCA staff witnessed the testing.

25. On October 8, 2019, Water Gremlin submitted the test report. After reviewing the report the MPCA requested additional information and on October 10, 2019, Water Gremlin submitted a revised report.

26. On October 30, 2019, the MPCA issued a Notice of Permanent Total Enclosure Verification Acceptance, stating that after review the three coating rooms passed the permanent total enclosure test.

27. On October 21, 2019, MPCA staff conducted an inspection at the Facility and observed that the chemical storage room and main coating room floors had been sealed, and that the stainless steel floor pans beneath the coaters in the main coating room had been sealed to the floor along the horizontal seam. During this inspection MPCA staff also observed two areas on the sealed floor where the sealant had flaked away, revealing the concrete floor beneath it. Water Gremlin stated that this had occurred due to a heavy piece of equipment falling onto the floor and that it was exploring options to repair it.

28. On October 25, 2019, Water Gremlin submitted an analytical report for the water-based coating material. After review, the MPCA determined that the water-based coating material did not contain any VOCs above the detection level.

29. On November 7, 2019, MPCA staff conducted a follow-up inspection at the Facility and observed that the other two coating room floors had been sealed, and that the stainless steel floor pans beneath the coaters had been sealed to the floor along the horizontal seam. During this inspection, MPCA staff visually inspected the floors of all three coating rooms, and did not observe any degradation of the floor sealant. Water Gremlin stated that the previous areas of degradation had been professionally patched. MPCA staff also visually inspected each coater to determine if the coater was enclosed on all sides. MPCA staff documented coaters that still utilized the concrete wall as part of the coater enclosure. Water Gremlin stated that they were still in the process of constructing these additional enclosure walls.

30. On January 3, 2020, Water Gremlin notified the MPCA that it is no longer pursuing the use of the adsorber air pollution control equipment. Water Gremlin stated that it believes that it has exhausted any potential modifications or repairs and would result in recovery of the VOC solvent. As part of this change the bypass stacks will also be removed, the structure of the fluidized bed solvent recovery unit will remain in place but the adsorbing beads will be removed to minimize the pressure drop across the unit and reduce energy usage. Water Gremlin will verify that exit temperatures and flow rates are unchanged, or advise of new values, using the stack testing reference methods. Water Gremlin will submit a revised air permit application to incorporate these changes.

31. Water Gremlin will prepare and submit in January a revised air permit application to incorporate this change and to remove any references to the fluidized bed solvent recovery unit. The application will request a limit of 90 tons/year for VOC, without operation of the fluidized bed solvent recovery unit. That will be accomplished by restricting VOC usage to meet the 90 tons/year VOC limit without depending on any control equipment.

32. If at any time the MPCA determines that VOC coating operations are causing releases to the soil vapor, soil, or groundwater at the Facility, the MPCA reserves the right to prohibit Water Gremlin from continuing its VOC coating operations.

CONCLUSIONS

33. The MPCA has reviewed all available evidence, and has determined that given the location of the spills, in conjunction with the operation of the negative pressure alarm, the most likely cause of the contaminated soil vapor, soil, and groundwater beneath the Facility was indeed the TCE/tDCE spill material that was discovered beneath several VOC coating machines in September 2019, as well as past TCE/tDCE spills in the chemical storage room.
34. Water Gremlin's proposed corrective measures in the Work Plan were not sufficient to prevent additional contamination of the soil vapor, soil, and groundwater beneath the Facility.
35. The MPCA concludes that if Water Gremlin implements the corrective measures listed below in paragraphs 36 - 65, including measurements to confirm their effectiveness, as well as abide by all other environmental regulations, including hazardous waste regulations, additional contamination of the soil vapor, soil, and groundwater beneath the Facility will be unlikely.

ORDER

The MPCA will allow the Regulated Party to resume VOC coating operations subject to the following conditions. Failure to meet any of the conditions below will require Water Gremlin to cease VOC coating operations until approval by the MPCA.

Sealing the Floors with the Retro-Coat Vapor Intrusion Coating System

36. Prior to resuming any VOC coating operations, Water Gremlin shall seal the floors of all three coating rooms and the chemical storage room with the Retro-Coat Vapor Intrusion Coating System. The entire floor around the coaters, of each coating room, shall be sealed, with the seams of the stainless steel floor pans sealed to the floor with 3M Scotch-Weld Epoxy Adhesive DP100 Plus. This shall be verified and approved by MPCA staff prior to resuming VOC coating operations.

...THIS REQUIREMENT HAS BEEN COMPLETED.

37. Once each VOC coating operating day, Water Gremlin shall inspect the floor of each coating room to check for degradation of the Retro-Coat Vapor Intrusion Coating System.
    a. If degradation is discovered, Water Gremlin shall immediately resolve the degradation.
    b. If Water Gremlin does not resolve the degradation within 24 hours, Water Gremlin shall immediately cease VOC coating operations in that coating room until the degradation is corrected.
    c. Water Gremlin shall notify the MPCA immediately upon ceasing VOC coating operations due to degradation of the Retro-Coat Vapor Intrusion Coating System.
    d. Water Gremlin shall photograph all degradation areas before and after corrective actions are taken.
38. Water Gremlin shall keep a record of the daily floor inspection, as well as all degradation that is discovered, and all corrective actions taken. Water Gremlin shall submit these records to the MPCA daily, by 4:30 pm every operating day.

Paired Sub-Slab and Indoor Air Testing to Evaluate VOC Releases through the Floor-Slab

39. Prior to resuming any VOC coating operations, Water Gremlin shall conduct paired sub-slab and indoor air testing to establish baseline sub-slab VOC concentrations in the sub-surface in each VOC coating room and chemical storage room. MPCA will use the baseline sub-slab VOC concentrations to compare with future results once VOC coating has resumed to evaluate if VOCs are migrating from the indoor air to the sub-surface through the concrete floor.

    e. Submit a plan, subject to MPCA approval, detailing how and where the paired indoor air and sub-slab samples will be taken, the locations of each coater and chemical storage room, the laboratory that will analyze the samples, and the quickest TAT allowed by the laboratory. Upon MPCA approval of the plan the Regulated Party shall follow the approved plan.

    f. All existing sub-slab locations, or MPCA-approved relocated sub-slab sample locations, in each coating room and chemical storage room, shall be sampled along with paired indoor samples at each sub-slab location and an outdoor air sample. The outdoor air sample shall be taken west of the main coating room.

    g. The paired indoor air and sub-slab samples shall be collected and analyzed in accordance with the MPCA's Remediation Program's Best Management Practices (https://www.pca.state.mn.us/waste/vapor-intrusion-best-management-practices-0). Pressure differential measurements using a calibrated micro manometer shall be collected and reported to the MPCA at each sub-slab sample location during all sampling events.

    h. All indoor air, sub-slab, and outdoor air samples shall be collected in canisters that have been individually certified clean by the laboratory and analyzed for VOCs using EPA method TO-15 (MN List).

    i. The paired indoor air and sub-slab sample results shall be sent to the MPCA directly from the laboratory along with associated pressure differential readings as soon as possible following analysis.

40. The MPCA has grouped the VOC coaters and sub-slab points as follows. If the listed sub-slab sampling points no longer exist, new sub-slab sampling points will need to be installed within immediate proximity of the associated coaters within each coating group. All new sub-slab locations must be submitted to the MPCA for review and approval prior to sample collection. Water Gremlin is prohibited from moving these coaters, prior to receiving written approval from the MPCA. Water Gremlin is prohibited from operating VOC coaters that are not in these groups, prior to receiving written approval from the MPCA. Upon receiving written approval from the MPCA, all of the requirements in this Order apply to those VOC coaters:

    j. VOC Coater Group 1 (CG-1)

        i. Coater 25 (CTR-25)

        ii. Coater 28 (CTR-28)

        iii. Sub-slab point 11 (SS-11)

    k. VOC Coater Group 2 (CG-2)

        i. Coater 12 (CTR-12)

        ii. Coater 17 (CTR-17)

iii. Sub-slab point 12 (SS-12)

l. VOC Coater Group 3 (CG-3)
   i. Coater 21 (CTR-21)
   ii. Coater 22 (CTR-22)
   iii. SS-12
   iv. Sub-slab point 13 (SS-13)

m. VOC Coater Group 4 (CG-4)
   i. Coater 16 (CTR-16)
   ii. Coater 18 (CTR-18)
   iii. Coater 19 (CTR-19)
   iv. Coater 20 (CTR-20)
   v. Sub-slab point 14 (SS-14)

n. VOC Coater Group 5 (CG-5)
   i. Coater 9 (CTR-9)
   ii. Coater 10 (CTR-10)
   iii. Coater 15 (CTR-15)
   iv. Sub-slab point 15 (SS-15)

o. VOC Coater Group 6 (CG-6)
   i. Coater 8 (CTR-8)
   ii. Coater 23 (CTR-23)
   iii. Coater 24 (CTR-24)
   iv. Coater 26 (CTR-26)
   v. Sub-slab 19 (SS-19)
   vi. Sub-slab 20 (SS-20)

p. VOC Coater Group 7 (CG-7)
   i. Coater 4 (CTR-4)
   ii. Coater 27 (CTR-27)
   iii. Sub-slab 10 (SS-10)

41. Water Gremlin shall restrict VOC coating operations so that one VOC Coater Group is restarted at a time.

42. Within 12 hours of restarting any of the VOC coaters in a VOC Coater Group, for each of the VOC Coater Groups, Water Gremlin shall conduct paired indoor air and sub-slab sampling. Water Gremlin shall operate at least one VOC coater in each VOC Coater Group for a minimum of 6 hours prior to conducting the paired indoor air and sub-slab sampling. At least one VOC coater in the VOC Coater Group shall be operating during the paired indoor air and sub-slab sampling.

    q. All of the sub-slab locations associated with the VOC Coater Groups in operation shall be sampled along with paired indoor samples at the same sub-slab locations.

    r. The paired indoor air and sub-slab samples shall be taken in accordance with the MPCA's Remediation Program's Best Management Practices (https://www.pca.state.mn.us/waste/vapor-intrusion-best-management-practices-0). Pressure differential measurements using a calibrated micro manometer shall be collected and reported at each sub-slab sample location during all sampling events.

    s. The results of the paired indoor air and sub-slab sample analytical analysis shall be expedited as quickly as possible, with a turnaround time (TAT) as quickly the laboratory allows, not to exceed three days.

    t. The paired indoor air and sub-slab shall be analyzed for VOCs using EPA method TO-15 (MN List) and individually certified canisters.

    u. The paired indoor air and sub-slab sample results shall be sent to the MPCA directly from the laboratory along with associated pressure differential readings as soon as possible following analysis.

    v. MPCA will evaluate the laboratory analytical data in comparison to the baseline levels and pressure differential readings to determine if vapors are migrating through the floor slab and into the sub-surface.

    w. If MPCA determines that a significant release is occurring through the floor slab and into the sub-surface based on the data provided, MPCA will notify Water Gremlin to cease operating that VOC Coater Group. Upon receiving this notification, Water Gremlin shall immediately cease operating that VOC Coater Group, and notify the MPCA that it has done so.

        i. The MPCA will determine what, if any, actions Water Gremlin must take in order to re-start the affected VOC Coater Group, and will notify Water Gremlin in writing of these actions.

        ii. Water Gremlin is prohibited from restarting the affected VOC Coater Group until it has received written permission from the MPCA.

    x. Without waiting for notification from the MPCA, if at any time the indoor air samples exceed OSHA's Permissible Exposure Limits (PELs), Water Gremlin shall immediately cease all VOC coating operations in that coating room. Water Gremlin shall notify the MPCA that it has ceased operations in the affected coating room, and provide a report identifying the cause of the exceedance.

43. Water Gremlin shall not operate additional VOC Coater Groups until the paired sub-slab and indoor air sampling has been conducted for the currently operating VOC Coater Group.

44. Upon resuming any VOC Coating Groups, Water Gremlin shall conduct paired indoor air and sub-slab sampling every seven days, for the entire Facility.

y. All existing sub-slab locations in each coating room shall be sampled along with paired indoor samples at each sub-slab location.

z. The paired indoor air and sub-slab samples shall be taken in accordance with the MPCA's Remediation Program's Best Management Practices (https://www.pca.state.mn.us/waste/vapor-intrusion-best-management-practices-0). Pressure differential measurements using a calibrated micro manometer shall be collected and reported at each sub-slab sample location during all sampling events.

aa. The results of the paired indoor air and sub-slab sample analytical analysis shall be expedited as quickly as possible, with a turnaround time (TAT) as quickly the laboratory allows.

bb. The paired indoor air and sub-slab shall be analyzed for VOCs using EPA method TO-15 (MN List) and individually certified canisters.

cc. The paired indoor air and sub-slab sample results shall be sent to the MPCA directly from the laboratory along with associated pressure differential readings as soon as possible following analysis.

dd. MPCA will evaluate the laboratory analytical data in comparison to the baseline levels and pressure differential readings to determine if vapors are migrating through the floor slab and into the sub-surface.

ee. If MPCA determines that a significant release is occurring through the floor slab and into the sub-surface based on the data provided, MPCA will notify Water Gremlin to cease operating that VOC Coater Group. Upon receiving this notification, Water Gremlin shall immediately cease operating that VOC Coater Group, and notify the MPCA that it has done so.

    i. The MPCA will determine what, if any, actions Water Gremlin must take in order to re-start the affected VOC Coater Group, and will notify Water Gremlin in writing of these actions.

    ii. Water Gremlin is prohibited from restarting the affected VOC Coater Group until it has received written permission from the MPCA.

ff. Without waiting for notification from the MPCA, if at any time the indoor air samples exceed OSHA's Permissible Exposure Limits (PELs), Water Gremlin shall immediately cease VOC coating operations in that coating room. Water Gremlin shall notify the MPCA that it has ceased operations in the affected coating room, and provide a report identifying the cause of the exceedance.

Total Enclosure Test

45. Prior to resuming any VOC coating operations, Water Gremlin shall submit the permanent total enclosure test report that demonstrates that all of the coating rooms are indeed a permanent total enclosure.

...THIS REQUIREMENT HAS BEEN COMPLETED.

46. After resuming VOC coating operations, Water Gremlin shall observe and record the pressure drop, door status, and verify the alarm system is operating with a set point at a minimum pressure drop of 0.007 inches of water, for each coating room once each VOC coater operating day.

gg. If the pressure drop across any coating room door is less than 0.007 inches of water, Water Gremlin shall immediately take action to evaluate the reasons for the deviation, and correct the deviation.

hh. If the door status is different than the permanent total enclosure test report approved door status, for each coating room, Water Gremlin shall immediately take action to evaluate the reasons for the deviation, and correct the deviation.

ii. The current alarm system for each coating room door must be set to a minimum pressure drop of 0.007 inches of water.

jj. If the alarm system sounds, indicating that the pressure drop at a coating room door has fallen below 0.007 inches of water, Water Gremlin shall immediately cease operating all VOC coaters in the affected coating room. Water Gremlin shall immediately take action to evaluate the reason for the alarm system sounding, and correct the issue.

kk. Failure to operate within the MPCA-approved alarm system minimum pressure drop and door status violates this order and is sufficient basis for the MPCA to require Water Gremlin to cease VOC-coating operations in the affected coating room.

ll. If the pressure drop readings, or position of the coating room doors show any deviations that demonstrate that the coating rooms are not continuously operating as permanent total enclosures, Water Gremlin shall immediately notify the MPCA.

47. After resuming VOC coating operations, Water Gremlin shall submit a weekly report of the pressure drop readings, the door status, and daily alarm verification, for each coating room. The report must include any deviation from the approved minimum pressure drop, and/or door status, the actions taken to evaluate the reasons for the deviation, and the corrective actions taken to resolve the deviations.

mm. Water Gremlin shall submit the weekly report to the MPCA by 4:30 pm every Friday.

nn. If the MPCA determines that any of the deviations are significant, MPCA will notify Water Gremlin to cease all VOC coating operations in that affected coating room. Upon receiving this notification, Water Gremlin shall immediately cease all VOC coating operations in the affected coating room, and notify the MPCA that is has done so.

i. The MPCA will determine what, if any, actions Water Gremlin must take in order to re-start the affected VOC Coater Group, and will notify Water Gremlin in writing of these actions.

ii. Water Gremlin is prohibited from restarting the affected VOC Coater Group until it has received written permission from the MPCA.

Gas Chromatograph Test on Water Based Coaters

48. Within 14 days of resuming VOC coating operations, Water Gremlin shall analyze representative water-based coaters using gas chromatography to determine if there are any regulated pollutants being emitted from the water-based coating operations. The test shall not include material from VOC coaters and must include water-based coaters representing each of the various forms of coating application techniques (dipping, dripping, and spraying).

...THIS REQUIREMENT HAS BEEN COMPLETED.

49. Within 30 days of resuming VOC coating operations, Water Gremlin shall submit the results of the gas chromatograph analysis of the water-based coaters to the MPCA directly from the laboratory performing the analysis. The results must include a speciation of any VOCs identified in the water coating liquid.

VOC Emission Venting

50. Immediately upon resuming VOC coating operations, Water Gremlin shall vent all VOC emissions from the coating rooms to the carbon adsorber stack (STRU 3).
51. Immediately upon resuming VOC coating operations, Water Gremlin shall operate the ventilation system associated with the carbon adsorber stack (STRU 3) at all times that any VOC coating operations are operating. Water Gremlin is prohibited from exhausting VOC emissions from VOC coating operations through any other point.

VOC Coaters and Verification by MPCA

52. Each VOC coater must be inspected by the MPCA prior to it resuming VOC coating operations.
53. Each VOC coater must:
    oo. Either be a "table top" coater that does not touch the ground; or
    pp. Be fitted with a stainless steel floor pan; and
    qq. Be enclosed on all sides, so that concrete walls are not utilized as part of the coater enclosure, and the tops of the coaters are enclosed.

VOC 365-day Rolling Sum and Solvent Usage Records

54. Water Gremlin shall limit VOC emissions to less than or equal to 90 tons per year as a 365-day rolling sum.
55. On each day of operation, Water Gremlin shall calculate the VOC 365-day rolling sum.
    rr. This calculation shall be based on daily VOC solvent usage, which must include purchased solvent as well as VOC material that is shipped off-site as waste, and an MPCA approved allowance for VOC emission loss due to material handling, and VOCs contained in water based coatings.
    ss. If Water Gremlin wishes to get credit for VOC shipped off-site as waste, this must be done on a daily basis by measuring and recording the amount of VOC material shipped off-site as waste every day and subtracting this amount from the daily VOC usage records for the same day.
    tt. Water Gremlin shall include VOC emissions from coating operations, from the mitigation system, and from any other source at its Facility.
56. Water Gremlin shall submit daily VOC solvent usage records, daily water based coating usage records, daily VOC waste records, daily VOC emission loss records, and the VOC 365-day rolling sum, as an unlocked editable excel spreadsheet, to the MPCA by 4:30 pm each day following an operating day.

VOC Emission Monitor

57. Water Gremlin shall hire a third party company to operate a continuous VOC emission monitor at the carbon adsorber stack (STRU 3) anytime that VOC-coating operations are occurring.

58. The third party company shall submit the continuous VOC emission monitor results from STRU 3 daily to the MPCA, for the previous operating day.

VOC Ambient Monitoring

59. Water Gremlin shall continue to conduct VOC ambient monitoring every one in three days at the approved monitor locations, as outline in the March 1, 2019 Agreement.

60. Water Gremlin shall continue to maintain a 48 hour turnaround time (TAT) for the results of the VOC ambient monitoring analytical analysis.

    a. The VOC ambient monitoring results shall include the full TO-15 list.

    b. The VOC ambient monitoring results shall be sent to the MPCA as soon as possible after analysis and directly from the laboratory.

Modeling

61. Within 30 days of resuming VOC coating operations, Water Gremlin shall submit the requested information needed to conduct modeling of all emissions from its Facility, including all of the emissions from the mitigation stack.

    a. The MPCA will conduct the modeling, and will make decisions based on this information. If the MPCA determines that Water Gremlin requires additional operating restrictions, or other requirements, the Regulated Party must comply immediately.

Air Permit Application

62. On August 30, 2019, Water Gremlin submitted an air permit application supplement which included a proposed total enclosure test plan. This permit application supplement states that some coating units use spray application techniques for coating, however, the application supplement emissions calculations did not include a description of particulate emissions (such as rosin solids) from overspray. Within 30 days of resuming VOC coating operations, Water Gremlin shall submit a permit application supplement that includes a complete description of these spray-coating operations, including spray-coating emissions from both VOC and water-based coating operations.

    uu. If the water-based coating material is not applied by spraying the permit application supplement must specifically state so.

    vv. The air permit application supplement shall include emissions calculations describing the potential to emit for particulate matter (PM), particulate matter with an aerodynamic diameter less than 10 micrometers (PM_{10}), and particulate matter with an aerodynamic diameter less than 2.5 micrometers ($PM_{2.5}$), from all of the coaters.

63. Within 30 days of resuming VOC coating operations, Water Gremlin shall submit a permit application supplement that includes all of the adsorber and bypass stack changes that will or have occurred at its Facility. The application must include a detailed description of how the VOC and water-based solvent are handled at the facility at every step, from purchasing to disposal as a waste. It must include any onsite conditioning or reuse.

64. Water Gremlin is prohibited from implementing changes at the Facility, including modifying additional VOC coaters to water-based coaters, that have not been fully described in a supplement to the August 30, 2019 air permit amendment application that has been reviewed and accepted in writing by the MPCA. The MPCA will accept an air permit amendment application in writing if it is complete and if the technical questions have been answered in enough detail to draft all of the air permit conditions for the units affected by the changes.

Compliance With Applicable Laws and Obligations

65. Water Gremlin shall operate in compliance with all applicable federal, state, and local laws and regulations, including without limitation in Water Gremlin's undertaking actions to comply with this Order. Except when the MPCA has specifically authorized a different compliance method, Water Gremlin must also comply with all applicable permits, orders, stipulation agreements, and schedules of compliance.

NOW, THEREFORE, IT IS ORDERED:

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 the Regulated Party 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 the Regulated Party. 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.

IT IS SO ORDERED.

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

1-17-2020
Date signed (Month day, year)

Laura Bishop
Commissioner