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Affirmative Action/Equal Opportunity Employer

PRETREATMENT PERMIT

issued to

3M Purification Inc.32 River RoadStafford Springs, CT 06076

Location Address:

32 River Road Stafford Springs, CT 06076

Issuance Date: [TBD – Upon Signature] Effective Date: [TBD–Upon Signature] **Expiration Date:** May 31, 2024

Permit ID: SP0000060

SECTION 1: GENERAL PROVISIONS

- (A) This permit modification is issued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and a modified Memorandum of Agreement dated June 3, 1981, by the Administrator of the United States Environmental Protection Agency which authorizes the State of Connecticut to administer a Pretreatment Program pursuant to Title 40 of the Code of Federal Regulations Part 403 ("40 CFR Part 403").
- (B) 3M Purification Inc., ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsections (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

Section 22a-430-3 General Conditions

- (a) Definitions
- (b) General
- (c) Inspection and Entry
- (d) Effect of a Permit
- (e) Duty
- (f) Proper Operation and Maintenance
- (g) Sludge Disposal
- (h) Duty to Mitigate
- (i) Facility Modifications; Notification
- (j) Monitoring, Records and Reporting Requirements
- (k) Bypass
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations (Upsets)
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

Section 22a-430-4 Procedures and Criteria

- (a) Duty to Apply
- (b) Duty to Reapply
- (c) Application Requirements
- (d) Preliminary Review
- (e) Tentative Determination
- (f) Draft Permits, Fact Sheets
- (g) Public Notice, Notice of Hearing

- (h) Public Comments
- (i) Final Determination
- (j) Public Hearings
- (k) Submission of Plans and Specifications. Approval.
- (1) Establishing Effluent Limitations and Conditions
- (m) Case by Case Determinations
- (n) Permit issuance or renewal
- (o) Permit Transfer
- (p) Permit revocation, denial or modification
- (q) Variances
- (r) Secondary Treatment Requirements
- (s) Treatment Requirements for Metals and Cyanide
- (t) Discharges to POTWs Prohibitions
- (C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action, including but not limited to, penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA. Specifically, civil penalties of up to twenty-five thousand dollars (\$25,000) may be assessed per violation per day.
- (D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section 22a-6, under section 53a-157b of the CGS.
- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("the Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner at least thirty (30) days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure by the transferee to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.
- (F) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (G) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the RCSA.

SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and sections 22a-430-3(a) and 22a-430-6 of the RCSA.
- (B) In addition to the above, the following definitions shall apply to this permit:

"----" in the limits column on the monitoring table means a limit is not specified but a value must be reported on the Discharge Monitoring Report ("DMR").

"Average Monthly Limit" means the maximum allowable "Average Monthly Concentration" as defined in section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g. mg/l); otherwise, it means "Average Monthly Discharge Limitation" as defined in section 22a-430-3(a) of the RCSA.

"Daily Concentration" means the concentration of a substance as measured in a daily composite sample, or the arithmetic average of all grab sample results defining a grab sample average.

"Daily Quantity" means the quantity of waste generated during an operating day.

"gpd" means gallons per day.

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"Maximum Daily Limit" means the maximum allowable "Daily Concentration" (defined above) when expressed as a concentration (e.g. mg/l); otherwise, it means the maximum allowable "Daily Quantity" as defined above unless it is expressed as a flow quantity. If expressed as a flow quantity it means "Maximum Daily Flow" as defined in section 22a-430-3(a) of the RCSA.

"mg/l" means milligrams per liter.

"NA" as a Monitoring Table abbreviation means "not applicable".

"NR" as a Monitoring Table abbreviation means "not required".

"Range During Month" or "RDM", as a sample type, means the lowest and the highest values of all of the monitoring data for the reporting month.

"Range During Sampling" or "RDS", as a sample type, means the maximum and minimum of all values recorded as a result of analyzing each grab sample of; 1) a Composite Sample, or 2) a Grab Sample Average. For those permittees with continuous monitoring and recording pH meters, Range During Sampling shall mean the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

"S.U." means standard units.

SECTION 3: COMMISSIONER'S FINAL DETERMINATION

- (A) The Commissioner has made a final determination and found that modification of the existing system or installation of a new system will protect the waters of the state from pollution. The Commissioner's final determination is based on Application No. 202112198 for permit modification received on December 6, 2021, and the administrative record established in the processing of that application.
- (B) From the effective date of this permit, for a term not to exceed five years and until this permit expires or is modified or revoked, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. SP0000060, issued by the Commissioner to the Permittee on the issuance date, Application No. 202112198 received by the Department of Energy and Environmental Protection ("Department") on December 6, 2021, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. SP000060, following the issuance date of this permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions that may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) The discharge(s) shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharge(s) is restricted by, and shall be monitored in accordance with, the table(s) below.

				Table A-1					
			Effective	until October 31, 2	2022				
Discharge Serial Number: 201-1 Monitoring Location: 1									
Wastewater Description: Wastewater f	from filter i	manufacturing oper	rations including	g extruder non-contac	t colling water, labor	atory activity, cooli	ng tower blowdo	wn, floor wash water	
air compressor and autoclave condensate								,	
Monitoring Location Description: Eff	luent Pump	Access				~			
Discharge is to: Stafford POTW	•								
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			
		Average	Maximum	Sample/Reporting	Sample Type or	Instantaneous	Sample/	Sample Type or	
		Monthly Limit	Daily Limit	Frequency ²	Measurement to	Limit or	Reporting	Measurement to be	
					be Reported	Required Range	Frequency ²	Reported	
Biochemical Oxygen Demand, 5 Day	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab	
(BOD ₅)									
Flow Rate (Average Daily) ¹	gpd	400,000	NA	Daily	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period ¹	gpd	NA	500,000	Daily	Daily Flow	NA	NR	NA	
Flow (Day of Sampling)	gpd	NA	500,000	Weekly	Daily Flow	NA	NR	NA	
Formaldehyde	mg/l		19.1	Weekly	Daily Composite	28.6	NR	Grab	
Nitrogen, nitrate total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab	
Nitrogen, total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab	
Nitrogen, Kjeldahl, total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab	
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.5 - 10.0	Weekly	RDS	
pH, Minimum	S.U.	NA	NA	NR	NA	6.5	Continuous	Continuous	
pH, Maximum	S.U.	NA	NA	NR	NA	10.0	Continuous	Continuous	
Phenols, total	mg/l	5.0	10.0	Monthly	Grab Sample	10.0	NR	Grab	
					Average			l	
Phosphorous, total	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab	
Total Suspended Solids	mg/l			Weekly	Daily Composite		NR	Grab	

Table Footnotes and Remarks:

Footnotes:

¹ For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.

² The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample Frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

Remarks:

Samples shall be collected during normal production operating days.

				Table A-2						
			Effective fr	rom November 1.	2022					
Discharge Serial Number: 201-1			Monitoring Location: 1							
Wastewater Description: Wastewater f	rom filter	manufacturing ope	rations including	g extruder non-contac	t cooling water, labor	ratory activity, cool	ing tower blowdo	own, floor wash		
water, air compressor and autoclave con										
Monitoring Location Description: Eff	luent Pump	o Access								
Discharge is to: Stafford POTW										
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING				
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample/ Reporting Frequency ²	Sample Type or Measurement to b Reported		
Biochemical Oxygen Demand, 5 Day (BOD ₅)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab		
Flow Rate (Average Daily) ¹	gpd	400,000	NA	Daily	Daily Flow	NA	NR	NA		
Flow, Maximum during 24 hr period ¹	gpd	NA	500,000	Daily	Daily Flow	NA	NR	NA		
Flow (Day of Sampling)	gpd	NA	500,000	Weekly	Daily Flow	NA	NR	NA		
Formaldehyde	mg/l		19.1	Weekly	Daily Composite	28.6	NR	Grab		
Nitrogen, ammonia total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab		
Nitrogen, nitrate total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab		
Nitrogen, total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab		
Nitrogen, Kjeldahl, total (as N)	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab		
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.5 - 10.0	Weekly	RDS		
pH, Minimum	S.U.	NA	NA	NR	NA	6.5	Continuous	Continuous		
pH, Maximum	S.U.	NA	NA	NR	NA	10.0	Continuous	Continuous		
Phenols, total	mg/l	5.0	10.0	Monthly	Grab Sample Average	10.0	NR	Grab		
Phosphorous, total	mg/l	NA		Monthly	Daily Composite	NA	NR	Grab		
Total Suspended Solids	mg/l		250	Weekly	Daily Composite	375	NR	Grab		

¹ For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.

² The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample Frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

Remarks:

Samples shall be collected during normal production operating days.

- (B) All samples shall be comprised of only those wastewaters described in this schedule. Therefore, samples shall be taken prior to combination with wastewaters of any other type and after all approved treatment units, if applicable. All samples taken shall be representative of the discharge during standard operating conditions.
- (C) In cases where limits and sample type are specified but sampling is not required, the limits specified shall apply to all samples which may be collected and analyzed by the Department personnel, the Permittee, or other parties.
- (D) Testing for formaldehyde shall be conducted using either the NIOSH 3500 method or modified NIOSH 3500 method (colorimetric method using NBTH in place of chromatropic acid) or EPA Method 1667.

SECTION 5: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES AND REPORTING REQUIREMENTS

- (A) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved by the Environmental Protection Agency pursuant to 40 CFR 136 unless an alternative method has been approved in writing in accordance with 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified in this permit.
- (B) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.
- (C) The results of chemical analysis required above shall be entered on the DMR and reported to the Bureau of Materials Management and Compliance Assurance using NetDMR. Except for continuous monitoring, any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the Commissioner shall also be included on the DMR, or as an attachment, if necessary. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR shall be received by the Bureau of Materials Management and Compliance Assurance by the last day of the month following the month in which samples are taken.
- (D) If this permit requires monitoring of a discharge on a calendar basis (e.g. monthly, quarterly, etc.) but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR as scheduled, indicating "NO DISCHARGE". For those permittees whose required monitoring is discharge dependent (e.g. per batch), the minimum reporting frequency is monthly. Therefore, if there is no discharge during a calendar month for a batch discharge, a DMR must be submitted indicating such by the end of the following month.
- (E) DMR Reporting Requirements
 - 1. The Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit DMRs and other required reports through a secure internet connection.
 - a. Submittal of Reports Using NetDMR

Unless otherwise approved by the Commissioner, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR, in satisfaction of the DMR submission requirement of Section 5(C) of this permit.

DMRs shall be submitted electronically no later than the thirtieth (30th) day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs and associated attachments to the Department. The Permittee shall also electronically file any written report of non-compliance described in Section 6 of this permit as an attachment in NetDMR. NetDMR is accessed from: http://www.epa.gov/netdmr.

b. Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form ("opt-out request"). Opt-out requests

must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date the Permittee would be required under this permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR, unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at <u>deep.netdmr@ct.gov</u>:

<u>Attn: NetDMR Coordinator</u> Connecticut Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127

c. Submittal of Hard Copy DMRs

If an opt-out request has been submitted to the Department and approved by the Commissioner, the results of chemical analysis required above shall be entered on the DMR, provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance at the address below. Except for continuous monitoring, any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the Commissioner shall also be included on the DMR, or as an attachment, if necessary. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR shall be received at the address below by the last day of the month following the month in which samples are taken.

Water Permitting and Enforcement Division (Attn: DMR Processing) Bureau of Materials Management and Compliance Assurance Connecticut Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127

- (F) Copies of all DMRs shall be submitted concurrently to the local POTW involved in the treatment and collection of the permitted discharge.
- (G) The Permittee shall electronically transmit flow and effluent pH data from the Permittee's facility directly to the Stafford POTW. If at any time the transmission fails, the Permittee shall report the total daily flow of DSN 201-1 for the previous day to the Stafford POTW Monday through Friday. Monday's report shall include the total daily flow of DSN 201-1 for the previous Friday, Saturday, and Sunday. In the event of a holiday, the report shall be submitted on the next business day.
- (H) The Permittee shall provide the Stafford POTW with a daily composite sample of DSN 201-1 upon written/email request from the Stafford POTW.
- (I) From permit modification issuance to November 1, 2022, by close of business each Thursday or Wednesday if Thursday is a holiday, the Permittee shall notify the Stafford POTW if it intends to run the Zeta Plus operation at the facility the following weekend. Should the running of the Zeta Plus operation change prior to or over the weekend, the Permittee shall notify the Stafford POTW upon becoming aware of the change.

SECTION 6: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

- (A) If any sample analysis indicates that an effluent limitation specified in Section 4 of this permit has been exceeded, a second sample of the effluent shall be collected and analyzed for the parameter(s) in question and the results reported to the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division within thirty (30) days of the date of the analytical laboratory report identifying the exceedance.
- (B) The Permittee shall immediately notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division and the local WPCA of all discharges that could cause problems to the Publicly Owned Treatment Works ("POTW"), including but not limited to slug loadings of pollutants which may cause a violation of the POTW's NPDES permit, or which may inhibit or disrupt the POTW, its treatment processes or operations, or its sludge processes, use or disposal.
- (C) In addition to the notification requirements specified in Section 1(B) of this permit, if any sampling and analysis of the discharge performed by the Permittee indicates a violation of limits specified in Section 4 of this permit, the Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division within twenty-four (24) hours of becoming aware of the violation.

SECTION 7: COMPLIANCE SCHEDULE

- (A) The Permittee shall achieve compliance with the total suspended solids effluent limitations in Section 4 as soon as possible, but in no event later than November 1, 2022. Any process and/or wastewater treatment system modifications implemented to achieve compliance with the total suspended solids effluent limitations must be approved pursuant to section 22a-430-3(i) of the RCSA. In order to request such approval, the Permittee must submit a *Facility and Wastewater Treatment System Modification Notification and Request for Approval* form (document no. DEEP-WPED-APP-002).
- (B) <u>Submission of documents</u>. Any document, other than a discharge monitoring report, required to be submitted to the Commissioner under this section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Brittany Bendel, Sanitary Engineer Department of Energy and Environmental Protection Bureau of Materials Management and Compliance Assurance Water Permitting and Enforcement Division 79 Elm Street Hartford, CT 06106-5127

SECTION 8: COMPLIANCE CONDITIONS

In accordance with 40 CFR 403.8(f)(2)(viii), the Commissioner may provide public notification, in a newspaper of general circulation in the area of the respective POTW or by posting on the Department's public website, of permittees that at any time in the previous twelve (12) months were in significant noncompliance with the provisions of this permit. For the purposes of this provision, a permittee that is a Significant Industrial User is in significant noncompliance if its violation(s) meet(s) one or more of the following criteria:

- **Chronic violations:** Those in which sixty-six (66%) percent or more of all measurements taken for the same pollutant parameter during a six-month period exceed (by any magnitude) the Average Monthly, Maximum Daily, or Maximum Instantaneous Limit(s).
- Technical Review Criteria violations: Those in which thirty-three (33%) or more of all of the measurements taken for the same pollutant parameter during a six-month period equal or exceed the Average Monthly, Maximum Daily, or Maximum Instantaneous Limit(s) multiplied by 1.4 for BOD, TSS, fats, oil, and grease, or 1.2 for all other pollutants except pH.
- Monitoring Reports: Failure to provide, within forty-five (45) days after the due date, required reports such as DMRs.
- **Compliance Schedule:** Failure to meet within ninety (90) days after the schedule date, a compliance schedule milestone contained in or linked to a respective permit for starting construction, completing construction, or attaining final compliance.
- **Noncompliance Reporting:** Failure to accurately report noncompliance in accordance with provisions identified in Section 6 of this permit.

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- **Discretionary:** Any other violation of an effluent limit that the Department determines has caused, alone or in combination with other discharges, a violation of the POTW's NPDES permit, inhibition or disruption of the POTW, its treatment processes or operations, or its sludge processes, use or disposal.
- Imminent Endangerment: Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment, or has resulted in the Department's exercise of its emergency authority under 40 CFR 403.8(f)(1)(vi)(B) to halt or prevent such a discharge.
- **BMPs:** Any other violation or group of violations, which may include a violation of Best Management Practices, which the Department determines will adversely affect the operation or implementation of the pretreatment program.

This permit modification is hereby issued on

DRAFT Jennifer L. Perry, P.E. Bureau Chief Bureau of Materials Management and Compliance Assurance

JLP/BB

cc: Stafford POTW