State of Washington
Department of Ecology

In the matter of approving operations for Moses Lake Industries, Inc.	)))	**Preliminary Determination** AQPID No. A0250220

Project Summary

Moses Lake Industries, Inc. herein referred to as the Permittee, is an existing source located at 8248 Randolph Road NE, Moses Lake, Washington in Grant County.

The Permittee is classified as a Synthetic Minor 80 source for Hazardous Air Pollutant, Methanol.

The following equipment is the subject of this Ecology Order of Approval and evaluation:

One Tetramethylammonium Carbonate (TMAC) production facility including:

- One 10.5 MMBtu/hour methanol/natural gas Boiler (No. 1) and associated tanks
- One 16.7 MMBtu/hour methanol/natural gas Boiler (No. 2) with Low NOx burners and Flue Gas Recirculation system
- Piping for connection of temporary, portable backup boiler
- One flare to control vents from the TMAC production reaction and distillation trains
- Three Reaction/Distillation/Vapor Recovery Trains with the following major equipment:
    - 100 Reaction/distillation line with:
        - Small Reactor-Equipment ID Nos. R-121A
        - One-Evaporator - Equipment ID No. E-123
        - One-Distillation Column-Equipment ID No. TW-131
        - Vapor Recovery Vent Condensers:
            - DMC Vent Condenser - Equipment ID No. E-120
            - Distillation Vent Condenser - Equipment ID No. E-119
            - Two-Reaction Vent Condensers - Equipment ID No. E-105
        - -15 Degree Celsius Chiller (50:50 Water: Ethylene Glycol mix) providing increased reactor vent condensation for all Three production lines.
        - Various process condensers, vaporizers, heaters and coolers
    - 200 Reaction/distillation line with:
        - Two-Stages of Reactor-Equipment ID Nos. R-221, R-221A
        - Two-Stages of Evaporator-Equipment ID Nos. E-223A, E223B

        - One-Distillation Column-Equipment ID No.TW-231
        - Vapor Recovery Vent Condensers:
            - Distillation Vent Condenser - Equipment ID No. E-219
            - Reaction Vent Condenser - Equipment ID No. E-205
        - Various process condensers, vaporizers, heaters and coolers
    - Three raw material storage tanks serving both 100 & 200 lines:
        - Recovered Methanol-Equipment ID No. TK-003 (12,000 gallons)
        - DMC-Equipment ID No. TK-002 (18,000 gallons)
        - TMA-Equipment ID No. TK-001 (18,000 gallons)
    - Two TMAC Buffer Vessels-Equipment ID Nos. V-107, V-207
    - 42 TMAC Storage Tanks-Equipment ID Nos. AC01-30, AC34-45(6,000 gallons)
    - Three TMAC Day Tanks-Equipment ID Nos. AC31-33 (3,000 gallons)
    - One TMAC Holding Tank-Equipment ID No. AC-51 (5,500 gallons)
    - TMAC filling station in WH-2000
    - TMA offload compressor
    - 300 Reaction/distillation line with:
        - Two Small Reactors – Equipment ID Nos. R-02321, R-02323
        - Two Large Reactors – Equipment ID Nos. R-02322, R-02324
        - Vapor Removal Vessel – Equipment ID No. V-02325
        - One-Distillation Column – Equipment ID No. TW-02331
        - Vapor Recovery Vent Condensers:
            - Distillation Vent Condenser - Equipment ID No. HX-02319
            - Reaction Vent Condenser - Equipment ID No. HX-02305
            - DMC Vent Condenser – Equipment ID No. HX -02320
        - Various process condensers, vaporizers, heaters and coolers
    - Three raw material storage tanks serving 300 line:
        - Recovered Methanol-Equipment ID No. V-02004 (12,000 gallons)
        - DMC-Equipment ID No. V-02005 (18,000 gallons)
        - TMA-Equipment ID No. V-02006 (18,000 gallons)
        - TMA Offload Compressor – Equipment ID No. CP-02006

One Lab Scale Polymer R&D and Production Facility with:

- Four-10 liter or less reactor vessels and ancillary equipment in ventilated laboratory hoods using ethylene oxide (EO) and propylene oxide (PO). Reactor vessels and ancillary process equipment is ventilated through a Safe-Cell I Model SC2002 2-stage scrubber. Hoods are vented to the atmosphere.
- One 80 KW propane fired emergency generator. Model ET08046GVSN, Serial number 6194921 with digital non-resettable hour meter. Meets EPA emission standards.

One High Volume Polymer Manufacturing Facility with:

- Up to four outdoor batch reactors, jacketed, 'loop' operation using EO and PO.
- One Dowtherm J electrically driven heating and cooling system for the reactors
- One 85 KW propane fired emergency generator. Model 85 GGHG-1324816, Serial number D130485653 with digital non-resettable hour meter. Meets EPA emission standards.
- PB-12 utility building with process scrubber AAT Custom Safe-Cell 1, with secondary dry media scrubber AAT Safe-Cell II Model DR-245A, 313 SCFM
- PB-12 wastewater collection/transfer tank
- PB-12 storage of process related acids/bases
- PB-12 (one hood) and PB-08 (Three hoods) fume hoods for reactor starting material preparation and workup of non-hazardous polymer using acid/base chemistry.

Copper Manufacturing Facility with:

- Copper sulfate manufacturing and copper electrolyte batching activities in building PB97 with:
    - Six Reactors (CPL2 R1-R6)
    - 30 Crystallizers (CPL2 C1-C12, CPL2 EC1-EC18)
    - Eight Evaporators (CPL2 E1-E8)
    - One AAT Model 8V-ME-PP Orion scrubber, 800 CFM
    - One Harrington Environmental Model Number ECV 3 3-5 LV Scrubber, 4000 SCFM
- Copper sulfate manufacturing and copper electrolyte batching activities in building PB22 with:
    - 12 Reactors
    - 48 Crystallizers
    - 12 Evaporators
    - One AAT Model 1-6V-IS-PP acid scrubber, 1250 SCFM

One natural gas 1135 hp backup standby generator, Cummins Model C750N6, SN –X20J421705

Miscellaneous Emission Units/Activities*

- Multiple laboratory hoods and instruments associated with R&D efforts and product QA/QC.
- Maintenance activities including painting, fabrication, and welding.
- Small volume batch formulation of chemical products
- Emergency generator: Kohler Model 60RZ272, Serial Number 610008, 60 KW, 80 HP, Propane-fired: Shelf Life Studies Generator
- TMAH production activities (e.g., electrolysis cells, blending, sampling, filling)

*Emission Units/Activities Exempt from New Source Review (NSR)

Legal Authority

The emissions from the proposed project have been reviewed under the legal authority of RCW 70A.15.2210 and the applicable rules and regulations adopted thereunder. The proposed project, if operated as specified, will be in accordance with applicable rules and regulations, as set forth in Chapters 173-400 WAC and 173-460 WAC and the operation thereof, at the location proposed, will not result in ambient air quality standards being exceeded.

This Notice of Construction (NOC) Approval Order rescinds and replaces NOC Approval Order No. 22AQ-E002. NOC Approval Order No. 22AQ-E002 is no longer in effect.

Therefore, it is ordered that the project, as described in the NOC application and/or in the plans, specifications, and other information submitted to the Washington State Department of Ecology (Ecology), is approved for construction and operation provided the following conditions are satisfied:

Approval Conditions

1. Operational Requirements

TMAC Facility

a. The TMAC facility project system must be limited to an average process throughput of 7,108 pounds of pure TMAC product per hour (3,224 kg/hour), which correlates to 11,847 pounds per hour of 60 weight percent TMAC solution in water (5,374 kg/hour) based upon a rolling 30-day averaging period. No single day process throughput may exceed 187,590 pounds of pure TMAC product (85,113 kg/day). Any increase in TMAC product production that exceeds the above levels will require the submittal of another NOC application.

b. Boiler No. 1 and Boiler No. 2 must be limited to 768 hours per year for each boiler during startup. Startup is defined as periods in which the TMAC production is shutdown or in startup, and the boiler operates using methanol as fuel with TMA content greater than or equal to 0.41 percent.

c. The volume or weight of each type of fuel usage in the boilers must be measured.

d. The sulfur content of natural gas must be obtained annually from the utility supplier. The sulfur content of the backup LPG must not exceed 123 ppm by weight and must be verifiable from the receipts of purchase furnished by the vendor.

e. The maximum average hourly rate of LPG consumption when used as the backup fuel for the flare must not exceed 12 gallons per hour as calculated on a rolling 24-hour average.

f. The maximum annual amount of natural gas consumption as a fuel for the flare must be limited to 17.69 million standard cubic feet per year.

g. The maximum annual amount of LPG consumption as a fuel for the flare must be limited to 87,600 gallons per year.

h. Natural gas (or LPG as a backup) must be used to maintain the heat content of gas and vapors to the flare above or equal to 200 British Thermal Unit (BTU) per standard cubic feet. (Reference:40 CFR Part 60, Subpart A General Provisions, 60.18 General Control Device Requirements,(c)(3)(B)(ii)).

i. The flare must be operated at all times with a flame present when the TMAC process is operating. (Reference: 40 CFR Part 60, Subpart A General Provisions, 60.18 General Control Device Requirements, (c)(2)).

j. The flare must be operated at all times with an emission exit velocity less than 60 feet per second when the TMAC process is operating. (Reference: 40 CFR Part 60, Subpart A General Provisions, 60.18 General Control Device Requirements, (c)(4)).

k. The methanol used as fuel in the boilers must be analyzed weekly during normal operations to determine the fuel based nitrogen content. During startup operations, methanol fuel must be analyzed daily until TMA is less than 0.41 percent.

l. The supplier trucks that deliver to the TMA storage tank, TK-001, must recover the vent vapors from the tank during the refilling of the tank with TMA.

m. All vent condensers must be operated below a maximum temperature of minus 5 ^{o}C to prevent excessive escape of TMA to the flare system.

n. An emergency response plan must be maintained, including identification of responsible individual employees by title and delegation of authorities.

o. In the event of boiler failure or needed maintenance, a temporary, portable natural gas or LPG-fired boiler may be used to provide process steam while the original boiler is repaired or replaced. The temporary boiler will be subject to all of the requirements for the original boiler in this Order.

Polymer Manufacturing

p. Production of polymer in the lab scale EO/PO reactors is limited to 2.5 US tons (2,270 kg) on a 12-month rolling average.

q. Production of polymer in the high volume manufacturing (HVM) facility is limited to 20,800 kg per 12-month rolling average.

r. The HVM secondary dry scrubbing system (AAT Safe-Cell II, Model DR-254) may be bypassed for maintenance purposes, up to 175 hours per year. All emissions must be vented to the process scrubber (AAT Custom Safe-Cell 1).

Copper Purification

Building PB97

s. Copper purification reaction cycles must be limited to 58 cycles per week as calculated on a rolling average per month.

t. Copper sulfate and sulfuric acid emissions from the copper purification reactors must be controlled by the AAT Orion or the AAT Orion followed by the Harrington scrubber whenever the reactors are in operation.

u. Copper sulfate and sulfuric acid emissions from the evaporators must be controlled by the Harrington scrubber whenever the evaporators are in operation.

Building PB22

v. Copper purification reaction cycles must be limited to 116 cycles per week as calculated on a rolling average per month.

w. Copper sulfate and sulfuric acid emissions from the copper purification reactors and evaporators must be controlled by the AAT Model 1-6V-IS-PP acid scrubber, whenever the reactors and evaporators are in operation.

Natural gas Standby Generator

x. The natural gas 1135 hp standby generator must be operated no more than 450 hours in any consecutive 12-month period.

y. The natural gas generator must be equipped with properly operated and maintained non-resettable hour meters.

z. There must be no operation of the natural gas generator to produce power for demand-response arrangements, peak shaving arrangements, nor to provide power as part of a financial arrangement with another entity, or to supply power to the grid.

2. Testing Requirements

TMAC Facility

a. Initial performance testing of Boiler No. 2 must be performed within 180 days after installation of the boiler.

b. Periodic Performance Testing – Performance testing must be conducted by April 30th once every five calendar years unless an alternate date or frequency is requested in writing by the permittee and approved by Ecology.

c. The boilers must be tuned at least annually, and records maintained.

HVM Facility

d. Performance testing for Ethylene Oxide and Propylene Oxide from the inlet and outlet of both scrubbers must be performed within 180 days after installation of the second reactor, and then every 5 years thereafter.

Copper Purification Scrubbers

e. For Building PB97, performance testing for Particulate Matter, Copper Sulfate, and Sulfuric Acid must be performed within 180 days after issuance of this approval order for the AAT Orion and Harrington scrubbers, and then every five calendar years thereafter.

f. For Building PB22, performance testing for Particulate Matter, Copper Sulfate, and Sulfuric Acid must be performed within 180 days of startup of the new copper line purification scrubber, and then every five calendar years thereafter.

General Testing Requirements

g. Alternative Testing – The testing specified below must be conducted unless alternate or equivalent test methods are requested in writing by the permittee and approved by Ecology.

h. Testing Logistics – The permittee must provide sampling ports, safe access to sampling points and ports, and utilities for sampling and testing.

i. Number of Test Runs – Unless specifically noted below, testing of each emission point must consist of Three separate runs of at least 60 minutes each.

j. The boilers must be tested while operating on both the primary fuel and secondary fuel in separate tests.

k. Throughput during Testing – During testing, each process step associated with an emission point must be operated at a minimum of 90 percent of production throughput from the last 12 months of operation. If equipment has operated less than 12 months, then equipment must be operated at a minimum of 90 percent of rated capacity (Example: 90 percent of 10.5 MMBTU/hour = 9.45 MMBTU/hour). Operation of the process step during testing at less than 90 percent may be proposed but may result in an operational restriction that will be amended to this Approval Order.

l. Notification of Performance Testing – The permittee must provide written notification to Ecology of its intent to conduct any performance test at least 30 days before such test is scheduled to begin.

m. Submittal of Performance Test Plan – A written test plan, including a description of the method(s) proposed, must be submitted for approval to Ecology at least 30 calendar days prior to the start of any performance test.

n. Notification of Inability to Conduct Performance Test – If the Permittee is unable to conduct any performance test as scheduled, Ecology must be notified at least 24 hours

before the test at the address under Approval Condition 5, Reporting, or via telephone at (509) 329-3400.

o. Performance Tester Requirements – The performance testers must be independent contractors with previous experience in performing the test methods shown in Approval Condition 3.d, Performance test method requirements (except for nitrogen in methanol).

p. Performance Testing Results – The results of all performance testing must be sent to the address at Approval Condition 5. One copy of the completed test report must be submitted no later than 60 days after the last day of the testing.

3. Stack Emission Limits and Associated Performance Testing

a. The emission limits for the point source exhausts to be determined by performance testing are as follows:

Boiler No. 1

Point Source Combustion Fuel Units	Boiler Natural Gas lb/hour (ppmv at 3% O_2)	Boiler Methanol Startup lb/hour (ppmv at 3% O_2)	Boiler Methanol Normal lb/hour (ppmv at 3% O_2)	Boiler All Fuels ton/year	Required Source Testing by Fuel
PM_{10}	0.04	0.04	0.04	0.175	Not Required
NOx	1.71 (176)	8.55 (880)	1.71 (176)	9.0	Both
CO	0.457 (55)	1.83 (220)	0.457 (55)	2.0	Both
SOx	0.09	n/a	n/a	0.39	Not Required
VOCs as propane	0.41	0.41	0.41	1.79	Both
Methanol	--	0.8	0.2	0.87	Methanol
Opacity	<10%	<10%	<10%	--	Both
PM	--	0.03 lbs/MMBtu	0.03 lbs/MMBtu	--	only by Ecology request

Boiler No. 2

Point Source Combustion Fuel Units	Boiler Natural Gas lb/hour (ppmv at 3% O_2)	Boiler Methanol Startup lb/hour (ppmv at 3% O_2)	Boiler Methanol Normal lb/hour (ppmv at 3% O_2)	Boiler All Fuels ton/year	Required Source Testing by Fuel
PM (filterable)	0.12	0.50	0.50	2.19	Not Required
NOx	0.60 (30)	6.66 (448)	3.20 (215)	12.0	Both
CO	0.60 (50)	4.84 (400)	1.21 (100)	5.30	Both

Point Source Combustion Fuel Units	Boiler Natural Gas lb/hour (ppmv at 3% O_2)	Boiler Methanol Startup lb/hour (ppmv at 3% O_2)	Boiler Methanol Normal lb/hour (ppmv at 3% O_2)	Boiler All Fuels ton/year	Required Source Testing by Fuel
SOx	0.01	n/a	n/a	0.04	Not Required
VOCs as propane	0.09	0.34	0.34	1.24	Both
Methanol	--	0.92	0.23	0.75	Methanol
Opacity	<10%	<10%	<10%	--	Both
PM (filterable)	--	0.03 lbs/MMBtu	0.03 lbs/MMBtu	--	only by Ecology request

Flare

Flare Emissions	lb/hour	ton/year	Flare Inlet	Flare Outlet	Determination Method
NOx	5.21	22.81	--	--	Emission Factor (EF)
CO	1.80	7.90	--	--	Emission Factor (EF)
VOCs in actual wt.	1.92	8.41	Yes	--	Method 25 x EF
Methanol	0.51	2.25	Yes	--	TO-15 x EF
Opacity	0%	0%	--	Yes	Method 22

Copper Purification Scrubbers Building PB97

Copper Purification Scrubbers	lb/hour	lb/year	Source Testing
Copper Sulfate	0.075	657.5	EPA Method 29
Sulfuric Acid	0.0042	36.8	EPA Method 8
Particulate Matter	0.01 gr/dscf	3,003	Method 5 & 202
Opacity	5% each stack	--	Method 9

Copper Purification Scrubber Expansion Building PB22

Copper Purification Scrubbers	lb/hour	lb/year	Source Testing
Copper Sulfate	0.013	114	EPA Method 29
Sulfuric Acid	0.0036	31.5	EPA Method 8
Particulate Matter	0.01 gr/dscf	939	Method 5 & 202

Copper Purification Scrubbers	lb/hour	lb/year	Source Testing
Opacity	5% each stack	--	Method 9

High Volume Manufacturing Facility Scrubbers

High Volume Manufacturing Facility Scrubbers	lb/hour	lb/12 month	Source Testing
Ethylene Oxide*	--	0.28	Method – as approved by Ecology
Propylene Oxide*	--	0.37	Method – as approved by Ecology
Particulate Matter	0.01 gr/dscf	235	Method 5 & 202
Opacity	5% each stack	--	Method 9

Natural Gas Generator – no set testing frequency, use hourly limits to quantify emissions.

Natural Gas Generator	lb/hour	ton/year	Determination Method
Nitrogen Oxides	2.50	0.56	EF
Carbon Monoxide	4.99	1.12	EF
Sulfur Dioxide	0.007	3.29E-06	EF
Particulate Matter	0.11	0.03	EF
Volatile Organic Compounds	1.75	0.39	EF

b. Visible emissions for all sources except the flare and copper purification scrubbers must be less than ten percent opacity, averaged over a six-minute period. The flare must be operated with no visible emissions, except for a total of five minutes every two hours. (Reference: 40 CFR Part 60, Subpart A General Provisions, 60.18 General Control Device Requirements, (c)(1).) The copper purification scrubbers must be operated with visible emissions less than five percent opacity.

c. SOx emission testing will not be required. However, annual and hourly SOx emissions must be determined by the utility furnished sulfur content of the natural gas or LPG (if LPG were used as a backup fuel) and the amount of fuel combusted in the boiler and flare.

d. Performance test method requirements:

   i. Periodic performance testing methods for point sources – Performance testing must follow approved test methods Per 40 CFR 60, Appendix A as required for NOx, CO, VOCs, methanol, visible emissions for flare, HVM for toxics, and copper purification scrubbers for toxics and PM.

   ii. Nitrogen in methanol – Occupational Safety and Health Administration (OSHA) Salt Lake Technical Center, Method PV2060 (modified).

   iii. If Initial testing of PM(filterable) satisfies Subpart JJJJJJ, 40 CFR 63.11220(b) by being below half of the set limit 0.03 lbs/MMBtu, then regular performance testing for

PM/PM_{10} is not required. However, Ecology may require testing of any exhaust point for PM if the visible emissions are greater than 10 percent opacity.

e. Test Frequency requirements:

i. The boilers must be performance tested once every five years with both natural gas and methanol fuels per Section 4.a. Each fuel must be tested separately, and each test must comply with APPROVAL CONDITION 2, General Testing Requirements.

ii. The TMAC flare inlet must be performance tested once every five years and must comply with APPROVAL CONDITION 2, General Testing Requirements and Section 3.a.

f. Maximum Annual Emission Limitations:

Pollutant	Boiler No. 1 Tons/year	Boiler No. 2 Tons/year	Flare Tons/year	Generator Tons/year	HVM Scrubbers Tons/year	Copper Scrubbers Tons/year	Fugitive Tons/year	Total Tons/year
NOx	9.0	12.0	22.81	0.84	--	--	--	44.65
CO	2.0	5.30	7.90	1.69	--	--	--	16.88
VOC in actual weight	1.79	1.24	8.41	0.59	--	--	9.66	21.69
Methanol	0.87	0.75	2.25	0.0015	--	--	5.59	9.46
$PM_{10/2.5}$	0.175	2.19	--	0.03	0.12	1.97	--	4.49
EO	--	--	--	--	1.4E-04	--	9.3E-4	1.07E-3
PO	--	--	--	--	1.85E-04	--	9.2E-04	1.11E-03
Copper Sulfate	--	--	--	--	--	0.385	--	0.385
Sulfuric Acid	--	--	--	--	--	0.034	--	0.034

Dashes mean no limit has been set. Flare emissions are calculated by assuming two percent of organic material except for the natural gas fuel remains in the exhaust. It is assumed one percent of the natural gas and methanol fuel remains in the exhaust.

4. Operations & Maintenance (O&M) Manual

O&M manuals for all equipment that has the potential to affect emissions to the atmosphere from the TMAC process (including boilers and flare) and polymer production reactors, scrubber systems and generator must be developed and followed. Manufacturers' instructions may be referenced. The O&M manuals must be updated to reflect any modifications of the plant or operating procedures and must be made readily available to all plant operating and maintenance personnel. The O&M manuals must include:

a. Normal Operating parameters.

b. Operation, maintenance, and inspection schedules.

c. A description of all monitoring and record keeping procedures.

d. Procedures and actions in the event of abnormal control system operation.

5. Notifications, Submittals, and Reports

All notifications, submittals, and reports must be sent to:
Washington State Department of Ecology
Regional Air Quality Section
4601 N. Monroe Street
Spokane, WA 99205-1295

Annual reports may also be submitted electronically to: emissions.inventory@ecy.wa.gov

OR AS DIRECTED.

6. Monitoring

TMAC Facility

a. Flow indicators must be maintained in the vent streams from E-105, E-119, E-205, E-219, HX-02305 and HX-02319.

b. All process equipment and pipes containing a fluid of more than one percent by weight of organo amine chemicals must be monitored in a schedule as required in 40 CFR Part 60, Subpart VV-Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, paragraph sections 60.482-2, 60.482-4, 60.482-5, 60.482-6, and 60.482-7. Specifically, the minimum requirements are:

   i. Daily inspections of instrumentation and associated alarms, fluid sampling ports, and process vents.

   ii. Weekly inspections of piping joints, pressure relief systems, pumps, compressors and rotating equipment for drips and vapor leaks.

   iii. Annual check of the calibration of the temperature measurement instrumentation for the refrigerated vapor collection system.

   iv. Other process measurement devices must be checked and recalibrated as recommended by the manufacturer.

c. Monthly cubic feet of natural gas fuel required to maintain the flare.

7. Recordkeeping

Specific records must be kept on-site by the permittee and made available for inspection by Ecology upon request. The records must be organized in a readily accessible manner and

cover a minimum of the most recent 60-month period. The records to be kept must include the following:

TMAC Facility

a. Fuel delivery receipts including quantity and sulfur content for LPG from the vendor (only when LPG is used as a backup fuel).

b. Raw material delivery receipts including quantity for TMA, methanol, and other chemicals used in the manufacture of the TMAC product from the supplier.

c. Fuel consumption records for the boilers, flare, and natural gas standby generator listing amount of fuel and hours of usage by type for each combustion device.

d. Analytical records for methanol used as a fuel for the boilers, specifically showing the percent nitrogen by weight.

e. Hours of operation in startup mode for both boilers when running on methanol fuel.

f. Nature and details of any public complaint or emergency showing date/time emergency started, duration of emergency event, cause of emergency, emergency response actions, repair details, public alerts, estimated amount of airborne material releases, and date/time emergency concluded. Records must include all situations where the TMAC process was operated while any portion of the TMAC process equipment was not functioning properly.

g. A file for performance testing results.

h. Monitoring and inspection records must comply with the requirements found in 40 CFR Chapter 1 (7-1-99 Ed.), Part 60, Subpart VV, Section 60.486, Recordkeeping requirements.

    i. Including records of daily, weekly, and annual inspections listed in Approval Condition 6.

Emergency and Standby Generators

i. The hour meter reading for emergency and standby generators must be recorded monthly.

Polymer Manufacturing

j. Hours per year the secondary dry scrubber was not in use.

k. Mass of manufactured polymer will be summed monthly on a 12-month rolling average for each facility to demonstrate compliance with 1.p and 1.q.

Copper Purification

l. Reaction cycles must be summed weekly and averaged monthly to demonstrate compliance with Approval Condition 1.s and 1.v.

8. Reporting

a. MLI must notify Ecology by e-mail or in writing within 24 hours if the natural gas generator operates greater than 60 minutes as the result of a power outage or other unscheduled operation.

TMAC Facility

The following reports must be sent to the address in Approval Condition 5, Notifications, Submittals, and Reports, within 30 days following the end of the calendar year pursuant to WAC 173-400-101(2) unless otherwise noted below:

b. Summary annual report on hours of operation, annual emission estimates for NOx, CO, SOx, VOCs and TAPs (including methanol), and fuel consumption amounts with hours by type. Boiler emissions must be based on performance test results for each fuel, and startup or normal operating hours when using methanol fuel. Flare emission estimates must be based on performance test results and scaled according to average daily production rates (ratio of daily throughput to source test throughput). Fugitive emissions must be based on LDAR data.

c. Annual reports must include daily production rates, for every day of the previous year.

d. HVM facility and Copper purification annual emissions.

e. The nature and details of any emergency within 30 days of the occurrence.

f. Semiannual reports will be submitted pursuant to the requirements in 40 CFR Part 60 Subparts VV, NNN and RRR. Reports will be submitted by February 15th and August 15th for the previous six-month period.

g. The Permittee must notify Ecology within thirty days of the following events:

   i. Commencement of construction of the project.

   ii. Completion of the construction of the project.

   iii. If construction or operation has been discontinued for more than 18 months.

h. The Permittee must notify Ecology within sixty days (or longer as approved by Ecology) of the following events:

   i. Changes in operation contrary to information submitted in the NOC application.

   ii. Discontinued operations. This notification must include a shutdown status maintenance plan containing the following information, at a minimum:

      A. Maintenance that will be performed during the shutdown to allow startup in a timely manner with minimum amount of work and emissions, (allowable emission levels as of the date of shutdown cannot increase upon reopening).

   iii. Reactivating the facility following discontinued operations of 18 months or more. This notification must include a startup plan containing the following information, at a minimum:

A. Documentation that the shutdown maintenance was performed during shutdown to allow startup in a timely manner with minimum amount of work and emissions (allowable emissions levels as of the date of shutdown cannot increase upon reopening).

B. Documentation of testing performed which demonstrates that units are still be able to meet the parameters of this approval order after being inactive, or other documentation which demonstrates why testing is not necessary.

9. General Conditions

a. **Activities Inconsistent with this Order –** Any activity undertaken by the Permittee, or others, in a manner that is inconsistent with the data and specifications submitted as part of the NOC application or this NOC Approval Order, will be subject to Ecology enforcement under applicable regulations.

b. **Availability of Order –** Legible copies of this NOC Approval Order and any O&M manual(s) must be available to employees in direct operation of the equipment described in the NOC application and must be available for review upon request by Ecology.

c. **Compliance Assurance Access –** Access to the source by representatives of Ecology or the United States Environmental Protection Agency (EPA) must be permitted upon request. Failure to allow access is grounds for enforcement action under the federal Clean Air Act or the Washington State Clean Air Act and may result in revocation of this NOC Approval Order.

d. **Discontinuing Construction –** Approval to construct or modify a stationary source becomes invalid if construction is not commenced within eighteen months after receipt of the approval, or if construction is discontinued for a period of eighteen months or more. The permitting authority may extend the eighteen-month period upon a satisfactory showing by the permittee that an extension is justified.

e. **Equipment Operation** – Operation of the facility must be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with O&M manuals, unless otherwise approved in writing by Ecology.

f. **Registration** – Periodic emissions inventory and other information may be requested by Ecology. The requested information must be submitted within 30 days of receiving the request, unless otherwise specified. All fees must be paid by the date specified.

g. **Testing** – When compliant investigations, visible emissions observations, or other information obtained by Ecology indicates the need to quantify emissions, Ecology may require the Permittee to conduct material analysis or air emission testing. This testing requirement is in addition to any testing required by Ecology in this Order or under WAC 173-400-105.

h. **Violation Duration** – If the Permittee violates an approval condition in this NOC Approval Order, the violation is presumed to commence at the time of the testing,

recordkeeping, or monitoring which indicates noncompliance. The violation is presumed to continue until the time of retesting, recordkeeping, or monitoring which indicates compliance. A violation of an approval condition includes, but is not limited to, failure of air pollution control equipment, failure of other equipment resulting in increased emissions, or a failed source test indicating an exceedance of an emission limit. The duration of a violation may also be determined based on credible evidence which shows that the violation was of longer duration, that there were intervening days during which no violation occurred, or that the violation was not continuous in nature.

i. **Obligations Under Other Laws or Regulations** – Nothing in this NOC Approval Order excuses the Permittee from compliance with any applicable federal, state, or local statues, ordinances, or regulations.

j. **Maintaining Compliance** – It will not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the operations in order to maintain compliance with the conditions of this NOC Approval Order.

k. **Visible Emissions** – No visible emissions from the source are allowed beyond the property line, as determined by 40 C.F.R. Part 60, Appendix A, Test Method 22.

l. **Changes in Operations** – Any changes in operation contrary to information submitted in the NOC application must be reported to Ecology at least 60 days before the changes are implemented. Such changes in operation may require a new or amended NOC Approval Order.

Authorization may be modified, suspended, or revoked in whole or part for cause, including, but not limited to, the following:

- Violation of any terms or conditions of this authorization
- Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provision to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this authorization, will not be affected thereby.

Your Right to Appeal

You have a right to appeal this Approval Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Approval Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. “Date of receipt” is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Approval Order:

- File your appeal and a copy of this Approval Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Approval Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Address and Location Information

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Pollution Control Hearings Board
1111 Israel Rd SW
STE 301
Tumwater, WA 98501

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

Pollution Control Hearings Board
PO Box 40903
Olympia, WA 98504-0903

E-mail Address:

Department of Ecology
Not currently available (see WAC 371-08)

Pollution Control Hearings Board
Pchb-shbappeals@eluho.wa.gov

Americans with Disabilities Act Information

Accommodation Requests

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-7668 or visit https://ecology.wa.gov/accessibility. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

DATED at Spokane, Washington this day of December 2023.

Prepared By:

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Jenny Filipy, P.E.
Commercial/Industrial Unit
Air Quality Program
Eastern Region Office

Approved By:

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Karin Baldwin
Section Manager
Air Quality Program
Eastern Region Office