

**Synthetic Minor Operating Permit Application Evaluation Report
Isola USA Corp.
Application #14105 - Site (Plant) #3024**

Background:

Isola USA Corp. owns and operates a copper laminate manufacturing facility, Plant #3024, located at 401 Whitney Place, Fremont, California. The company's Title V was issued on March 15, 2005 and will expire on February 28, 2010.

Isola is a Title V plant pursuant to Regulation 2-6-212.2 because the facility has the potential to emit more than 10 tons per year of dimethyl formamide (DMF). DMF is a federal and state listed hazardous air pollutant (HAP). Isola is proposing to do away with its Title V permit by obtaining a Synthetic Minor Operating Permit (SMOP). To become a Synthetic Minor Plant, Isola is willing to accept a permit condition that will limit the emissions of DMF to less than 9 tons per year in accordance with the requirements of Section 2-6-230. The total combined HAP's will be less than 23 tons per year to stay under the Major Facility threshold in Section 2-6-212.2

The sources identified at this plant include:

Permitted Sources

S-#	Description	Make or Type	Capacity
101	Resin Solution Storage Tank	Custom	6000 gallons
102	Solvent Tank – Solvent/Resin	Custom	3000 gallons
103	Tank in Concrete Vault – Solvent/Resin	Custom	3000 gallons
106	Raw Resin Storage Tank	Custom	5000 gallons
201	Master Batch Kettle	Custom	500 gallons
202	Resin Mix Kettle	Custom	1000 gallons
203	Resin Mix Kettle	Custom	1800 gallons
302	Resin Mix Tank	Custom	130 gallons
303	Resin Mix Tank	Custom	750 gallons
304	Resin Mix Tank	Custom	750 gallons
305	Resin Mix Tank	Custom	750 gallons
306	Batch Mix Tank	Custom	225 gallons
401	Resin Sump Tank, Sealed Process	Custom	148 gallons
402	Treater Machine #1	Custom	80 gallons
404	Treater Machine #2	Custom	90 gallons
408	Mixing Tank	Custom	60 gallons
501	Laminate Press	Custom	5640 ft ² /hr
502	Laminate Press	Custom	3990 ft ² /hr
601	Inkjet Printer (exempt)	Custom	
602	Inkjet Printer (exempt)	Custom	
603	Natural gas boiler (exempt)	Custom	8 MMbtu/hr
604	Natural gas boiler (exempt)	Custom	2 MMbtu/hr

VOC emission also occur at two exempt inkjet printers, S-601 and 602. They are exempt per Reg 2-1-103 because they are subject to Reg 8-4 with maximum VOC emission under 10 lb/day.

Isola USA also operates a thermal oxidizer, A-500, and a catalytic oxidizer, A-600, that control its VOC emissions from the following sources:

A-#	Description	Source(s) Controlled	Operating Parameters	Limit or Efficiency
500	Thermal Oxidizer - 10.7 MMBTU/hr, natural gas only	Treaters 402, 404, Mixing Tank 408	operating temperature 1350 degrees F	97% enclosures VOC capture efficiency 98.5% abatement device destruction efficiency
600	Catalytic Oxidizer for mixing tanks - 1.253 MMBTU/hr, natural gas only	Mixing Tanks 201, 202, 203, 302, 303, 304, 305, 306	operating temperature 750 degrees F	95% control device efficiency

Emission Limits Strategy and emission calculation

To obtain a District issued synthetic minor operating permit (SMOP) pursuant to Section 2-6-423.2, a facility must have permit conditions limiting the facility's potential to emit to no greater than 95 tons per year of any regulated air pollutant, 9 tons per year of any single hazardous air pollutant, and 23 tons per year of any combination of hazardous air pollutants.

EPA has stated via a memo from John Seitz entitled "Guidance on Limiting Potential to Emit" dated June 13, 1989, that operational or throughput limits are required in addition to emission limitations. However, an exception has been made for situations involving solvent evaporating sources where the types and amounts of coatings and solvents used are unpredictable. A facility may use an emission limit provided daily throughput records are kept, and the emissions are calculated monthly with a total summary of twelve consecutive months.

Nearly all of the DMF emissions occur at the Treaters S-402 & S-404 and at the presses S-501 & S-502. The District will impose a twelve month DMF throughput limitation on the Treaters S-402 & S-404 and press throughput limitation on the presses S-501 and S-502. Isola has voluntarily accepted a condition (Condition #23008 part 18) to process only 693 tpy of VOC at the treaters instead of the existing potential maximum throughput of 1332 tpy of VOC. This will keep the overall POC maximum emission to under 35 tpy.

The existing permit condition 3274 allows the treaters to process 600,000 gal/yr of up to 4.44 lb/gal VOC, or 1332 tpy of VOC processed. As mentioned, Isola USA will accept a limit of 693 tpy of VOC processed. In addition, Isola will accept a DMF limit of 162 tpy processed. With the new limits, the maximum emission from S-402 and S-404 combined are 30.9 tpy VOC and 7.2 tpy DMF. Isola USA is also requesting the removal of the condition limit of 4.44 lb/gal since the new proposed limit is based on the weight of VOC. Regulation 8-12-301.2 requires a VOC content of 1.0 lb/gal after abatement, which is met by the enclosure system (97% efficient) and thermal oxidizer (98.5% efficient). The overall efficiency is $100 \times (0.97 \times 0.985) = 95.5\%$. Even if a compound has a VOC content of 10.0 lb/gal, it will be reduced to 0.45 lb/gal. There is no need for a 4.44 lb/gal VOC limit when emissions are substantially abated. It was established to easily keep track of the maximum amount of VOC processed at the treaters by keeping track of the gallons of varnish mix processed. The plant will now keep track of the weight of VOC processed instead by keeping track of how much VOC containing material is used and the manufacturer's specification on the VOC content of the material (Condition 23008 part 21).

Isola USA will be required to keep a record of daily throughput, summarized on a monthly basis and monthly year-to-date summaries. The sum of twelve months of operation would not exceed the rolling annual throughput limit. Isola USA will submit a usage report every year to the District's Compliance and Enforcement Division for review and inspection. EPA is also free to inspect the records at any time.

A listing of the HAPs currently in use at Isola USA is as follows:

- Dimethyl Formamide
- Methanol
- 2-butanone
- Methyl Ethyl Ketone
- Xylene
- Epichlorohydrin
- Cumene
- Methyl Oxirane
- Combustion HAPs from boilers and thermal oxidizers

Emissions calculations & discussion

The following tables summarize the potential emissions from the plant. The HAP emissions from the treaters (S-402 and S-404), the presses (S-501 and S-502), and storage tanks (S-101, 102, 103, and 106) are based on maximum permitted usages. The emissions from the mix tanks (S-201, 202, 204, 205, 206) are based on worst-case (highest VOC) resins usages. The emissions from mix tanks 306 and 408 are based on maximum permitted usages.

Emission for the tanks are based on their existing throughput limits, except for tanks S-306 and S-408 which have emission limits.

Combustion emission for the oxidizer A-500 and A-600 and for the two exempt natural gas fired boilers (S-603 and 604) are based on maximum firing rates at 8760 hours per year.

Emission from the exempt inkjet printers (S-601 and 602) are based on maximum production. These sources are exempt per Reg 2-1-103 because they are subject to Reg 8-4 with maximum emission of under 10 lb/day.

S-401 is a seal sump pump and is not expected to have any VOC emissions.

The combustion emission are based on EPA AP42 Ed. 5 Chapter 1.4 for natural gas combustion. Combustion emissions are based on maximum firing rates and 8760 hr/yr operation. The vapors from the mix tanks (except than S-408) are vented to A-600 with 95% control efficiency. The treaters and tank S-408 are located in an enclosure with a capture efficiency of 97%. The vapor from the enclosure are vented to A-500 with a control efficiency of 98.5%, for an overall efficiency of 95.5%.

Source	Condition		material	Abate Overall		tpy DMF	tpy HAP	tpy VOC
	Max	units		contro	l			
101	300000	gal	resin			0.000	0.000	0.000
102	250000	gal	acetone			0.000	0.000	0.000
103	150000	gal	dmf			0.006	0.000	0.000
106	150000	gal	resin			0.000	0.000	0.000
201	78000	gal	w.c. resin	A-600	95%	0.000	0.046	0.046
202, 204, 205, 206, 302, 303, 304, 305, & 306	715000	gal	w.c. resin	A-600	95%	0.006	0.529	0.529
306	50000	gal	w.c. resin	A-600	95%	0.000	0.006	0.006
401						0.000	0.000	0.000
402 & 404	693	tons	w.c. resin	A-500	95.5%	7.217	7.782	30.87
	162	tons	w.c. resin	A-500	95.5%			
408	50000		w.c. resin	A-500	95.5%	0.000	0.006	0.006
501	1500000	0 sq ft				0.855	0.862	0.862
502	1500000	0 sq ft				0.855	0.862	0.862
601 & 602	83.1	gal	ink makeup					
601 & 602 combustion	132.09 (see table)	gal	fluid			0	0.56	0.85
							0.18	0.52

	below)	
Total		8.94 10.08 33.17

w.c. resin = worst case resin

tanks S-201 through 305 have a combined 715,000 gal/yr limit

Treaters S-402 & 404 have combined VOC and DMF weight throughput limits

Combustion Emission

	Firing Rate	Fuel	PM10	SO2	NOx	CO	VOC	Org HAP	Metallic HAP
	MMBtu/hr	MMscf/hr	tpy	tpy	tpy	tpy	tpy	tpy	tpy
A-500	10.7	0.0105	0.35	0.03	5.74	3.86	0.25	0.09	0.00
A-600	1.253	0.0012	0.04	0.00	0.67	0.45	0.03	0.01	0.00
boiler	8	0.0078	0.26	0.02	4.29	2.89	0.19	0.07	0.00
boiler	2	0.0020	0.07	0.01	1.07	0.72	0.05	0.02	0.00
Total	22.0	0.0215	0.72	0.06	11.78	7.92	0.52	0.18	0.00

The only sources of NOx, CO and SO2 are from the products of combustion and are very low. The amount of VOC and PM10 from natural gas combustion is low. These sources do not exceed the major facility 100 ton per year threshold for NOX, CO, SO2, or particulate. These sources require no limits on the amount of fuel used.

Statement of Compliance:

This facility is in compliance with the necessary requirements in Regulation 2, Rule 6 to obtain a synthetic minor permit. Isola USA has voluntarily accepted federally enforceable permit conditions including emission limits that will keep its annual emissions within 90 tons per year of any regulated air pollutant, 9 tons of any hazardous air pollutant, and 23 tons of any combination of hazardous air pollutants. To establish compliance, daily records, monthly totals of POCs and HAPs will be maintained and a 12 month rolling average calculated each month.

Permit Conditions

Isola USA Corp., Site #A3024, has a synthetic minor operating permit. This operating permit covers all sources existing at this facility as of permit issuance. The sources are listed above.

The following conditions establish the permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6 - Major Facility Review and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. All applications submitted by the applicant and all modifications to the plant's equipment after issuance of the synthetic minor permit must be evaluated to ensure that the facility cannot exceed the synthetic

minor general limits below, and that sufficient monitoring, record keeping, and reporting requirements are imposed to ensure enforceability of the limits.

Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a Synthetic Minor must undergo the procedures specified by Rule 2-6, Section 423. The basis for the synthetic minor conditions is an emission limit for regulated air pollutants of less than 95 tons per year, an emission limit for a single hazardous air pollutant of less than 9 tons per year, and an emission limit for a combination of hazardous air pollutants of less than 23 tons per year.

Individual Sources Conditions (to be archived): The following permit conditions shall be archived in lieu of a single condition for all sources.

- Condition 7503 for S-101, 102, 103 (Last permitted - Application 13850)
- Condition 15638 for S-106 (Last permitted - Application 18242)
- Condition 10647 for S-202, 204, 205, 206 (Last permitted - Application 11476)
- Condition 3184 for S-302, 303, 304, 305 (Last permitted – Application 14948)
- Condition 4750 for S-306, 408 (Last permitted – Application 11476)
- Condition 3274 for S-402, 404 (Last permitted – Application 13850)
- Condition 21870 for S-402, 404 (Compliance Schedule for Title V, pressure monitoring equipment at abatement enclosure has been installed to meet compliance schedule)
- Condition 21502 for A-600 (Last permitted – 2011)
- Condition 20563 for all sources (Facility Wide condition for Small Facility Bank Reimbursement)

Asterisks denote permit conditions that are part of this permit but do not contribute to establishing the synthetic minor limits. The facility must comply with all conditions, regardless of asterisks. The following conditions do not negate the applicability of any District, state or federal requirements.

Synthetic Minor Condition #23008

Sources at this facility:

S-#	Description	Capacity
101	Resin Solution Storage Tank	6000 gal
102	Solvent Tank – Solvent/Resin	3000 gal
103	Tank in Concrete Vault–Solv/Resn	3000 gal
106	Raw Resin Storage Tank	5000 gal
201	Master Batch Kettle	500 gal
202	Resin Mix Kettle	1000 gal
203	Resin Mix Kettle	1800 gal
302	Resin Mix Tank	130 gal
303	Resin Mix Tank	750 gal

304 Resin Mix Tank	750 gal
305 Resin Mix Tank	750 gal
306 Batch Mix Tank	225 gal
401 Resin Sump Tank, Sealed Process	148 gal
402 Treater Machine #1	80 gal
404 Treater Machine #2	90 gal
408 Mixing Tank	60 gal
501 Laminate Press	5640 ft ² /hr
502 Laminate Press	3990 ft ² /hr
601 Inkjet Printer (exempt)	
602 Inkjet Printer (exempt)	
603 Natural gas boiler (exempt)	8 MMBtu/hr
604 Natural gas boiler (exempt)	2 MMBtu/hr

1. The owner/operator shall ensure that this facility, subject to a Synthetic Minor Operating Permit, shall emit no more than the following quantities of emissions in any 12-month period:
 - a. 95 percent of the major source thresholds for regulated air pollutants (excluding HAPs),
 - b. 9 tons per year of any single HAP,
 - c. 23 tons per year of any combination of HAPs, and
 - d. 90 percent of any lesser threshold for a single HAP as the U.S. EPA or District may establish by rule.

These limits shall include emissions from permitted, unpermitted, portable, and temporary sources at the facility except those sources defined as non-road engines as defined in 40 CFR 89. These limits are for the purpose of this Synthetic Minor Operating Permit only, and do not allow the owner/operator to exceed any other District permit conditions. These Synthetic Minor Operating Permit limits shall not be used as actual emissions, a permitted emission level or baseline emission level in conjunction with new source review, banking of emission reduction credits, or any other District rule.

[basis: Synthetic Minor]

For S - 101, S-102, S-103, STORAGE TANKS

2. The owner/operator shall only store the follow materials in tanks S-101, S-102 and S-103:

Tank	Material(s)
S-101	Acetone and Epoxy Resin
S-102	Acetone
S-103	Glycol Ether PM & dimethyl formamide

Before storing an alternate material, the owner/operator shall first apply for and receive written approval from the District. (basis: Cumulative Increase)

3. The owner/operator shall ensure that the following total throughputs for S-101, S-102 and S-103 are not exceeded during any consecutive 12-month period.

Tank	Throughput (gal/yr)
S-101	300,000
S-102	250,000
S-103	150,000

(basis: Cumulative Increase)

4. To demonstrate compliance with Parts 2 and 3, the owner/operator shall keep the following records for each tank and make them available for District inspection for a period of 5 years from the date on which a record was made.
 - a. The type of organic liquid stored and the dates that the organic liquids were stored.
 - b. The throughput quantities shall be totaled on a monthly basis.
(basis: Cumulative Increase)

For S - 106, Storage Tank:

5. The owner/operator shall ensure that the true vapor pressure of each and all liquids stored in S-106 shall not exceed 3.5 psia. The owner/operator shall note or calculate the vapor pressure each time a new liquid is added to S-106. (basis: Cumulative Increase)
6. The owner/operator shall ensure that the total throughput of all materials to S-106 does not exceed 150,000 gallons in any rolling 12 consecutive month period. (basis: Cumulative Increase)
7. On a monthly basis, the owner/operator shall record in a District approved log the total volume of each and all liquid materials throughput to S-106, in gallon units. The owner/operator shall keep this log for at least 5 years from date of entry. The owner/operator shall keep this log on site and make it available to the District staff upon request. (basis: Cumulative Increase)

For S-201, 202, S-204, 205, 206, 302, 303, 304, and 305 Mix Tanks:

8. The owner/operator shall ensure that the total varnish throughput at the Mix Tanks S-201, 202, S-204, 205, 206, 302, 303, 304, and 305 does not exceed 715,000 gallons during any consecutive 12 month period. (basis: cumulative increase)
9. In order to demonstrate compliance with Part 8, the owner/operator of S-201, 202, S-204, 205, 206, 302, 303, 304, and 305 shall maintain the following records in a District approved log. The owner/operator shall keep this log for at least 5

years from date of entry. The owner/operator shall keep this log on site and make it available to the District staff upon request. (basis: Cumulative Increase)

- a. The name and product classification of each material stored or mixed.
- b. Total daily, monthly, and annual throughput of each product.

10. The owner/operator shall abate emissions of volatile organic compounds (VOC) from Mixing Tanks S-201, S-202, S-204, 205, 206, 302, 303, 304, and 305 at all times of their operation by the Catalytic Oxidizer A-600. (basis: BACT)

Conditions for S-306 mix tank:

11. The owner/operator shall not process more than 500 gallons in any one day and 50,000 gallons in any one year of varnish at S-306. (basis: Cumulative Increase)
12. The owner/operator shall not use more than 8 gallons in any one day and 200 gallons in any one year of dimethyl formamide for cleanup at S-306. (basis: Cumulative Increase)
13. The owner/operator shall only process the following solvents at S-306:
dimethyl formamide
methyl cellosolve (R) acetate
toluene
n-methylpyrrolidone electronic.
(basis: Cumulative Increase)
14. The owner/operator may use solvents other than the material specified in Parts 11, 12, and 13 in S-306, provided that the owner/operator can demonstrate to the satisfaction of the APCO, through monthly recordkeeping and VOC calculations, that the use of these materials does not increase toxic emissions above any risk screening trigger levels of Regulation 2-5, Table 2-5-1, and the following process loss emission limits are not exceeded in any consecutive twelve month period:
VOC 229.5 lbs (basis: Cumulative Increase, Toxics Trigger)
15. The owner/operator shall record the varnish throughputs and total usage of dimethyl formamide, methyl cellosolve (R) acetate, toluene and n-methylpyrrolidone electronic at S-306 in a log every time S-306 is in use. The owner/operator shall retain all entries for at least 5 years from the date of entry. The owner/operator shall keep the log on site and make it available for the District staff upon request. (basis: Cumulative Increase)
16. The owner/operator shall store the spent and fresh dimethyl formamide in closed containers. The owner/operator shall use closed containers to store or dispose of cloth or paper used for solvent cleanup. (basis: Reg 8-12-305)
17. The owner/operator shall abate S-306 with A-600 Catalytic Oxidizer at all times of S-306's operation. (basis: BACT)

For S - 402, S-404, Treaters:

18. The owner/operator shall not process more than 693 tons (1,386,000 lbs) per year of POC (including DMF) at Sources S-402 and S-404 (Treater Machines #1 and #2) in any consecutive 12 month period. (basis: Cumulative Increase)
19. The owner/operator shall not process more than 162 tons (325,000 lbs, 40223 gallons) per year of DMF at Sources S-402 and S-404 (Treater Machines #1 and #2) in any consecutive 12 month period. (basis: Cumulative Increase)
20. The owner/operator shall ensure that the total amount of solvent (acetone) used for clean up at S-402 and S-404 does not exceed 2000 gallons during any consecutive 12 month period. (basis: Cumulative Increase)
21. To demonstrate compliance with parts 18, 19, and 20, the owner/operator of S-402 and S-404 shall maintain the following records in a District approved log. The owner/operator shall keep these records on site and make them available for inspection by District personnel upon request. (basis: Cumulative Increase)
 - a. the amount of unthinned resin components used daily at each treater machine
 - b. the type and amount of thinning solvent added to the resin on a daily basis
 - c. the type and total amount of solvent used for clean up
 - d. the VOC content of each material
 - e. the VOC content of each varnish mix
 - f. the amount of VOC, DMF, and acetone shall be summed at least once each month and totaled on a rolling 12 month basis
22. The owner/operator shall abate the emissions of volatile organic compounds (VOC) from Treater Machines S-402 and S-404 at all times by the Thermal Oxidizer A-500. This abatement device shall have a destruction efficiency of 98.5% or greater on a mass basis. (basis: BACT))
23. When the coating process is in operation, the owner/operator shall maintain the incineration temperature at 1350 degrees Fahrenheit or higher as necessary to meet the required destruction efficiency. (basis: Cumulative Increase)
24. In order to determine compliance with part 23, the owner/operator shall equip A-500, Thermal Oxidizer, with continuous temperature measuring instrumentation consisting of at least 1 thermocouple temperature probe in the thermal oxidizer. The owner/operator shall make available the temperature log to the District upon request and keep it for a period of five years. (basis: Regulation 1-521)
25. The temperature limit in Part 23 shall not apply during an "Allowable Temperature Excursion" below the limit, provided that the temperature controller set point complies with the temperature limit. An Allowable Temperature Excursion is one of the following:
 - a. A temperature excursion not exceeding 20 degrees F; or

- b. A temperature excursion for a period or periods which when combined are less than or equal to 15 minutes in any hour; or
- c. A temperature excursion for a period or periods which when combined is more than 15 minutes in any hour, provided that all three of the following criteria are met.
 - i. the excursion below the limit does not exceed 50 degrees F;
 - ii. the duration of the excursion does not exceed 24 hours; and
 - iii. the total number of such excursions does not exceed 12 per calendar year (or any consecutive 12-month period).

Two or more excursions below the limit greater than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit. [basis: Regulation 2-1-403]

26. For each Allowable Temperature Excursion below the limit that exceeds 20 degrees F. and 15 minutes in duration, the Owner/operator shall keep sufficient records to demonstrate that they meet the qualifying criteria described above. Records shall be retained for a minimum of five years from the date of entry, and shall be made available to the District upon request. Records shall include at least the following information:
- a. Temperature controller set point;
 - b. Starting date and time, and duration of each Allowable Temperature Excursion below the limit;
 - c. Measured temperature during each Allowable Temperature Excursion below the limit;
 - d. Number of Allowable Temperature Excursions below the limit per month, and total number for the current calendar year; and
 - e. All strip charts or other temperature records.
- [basis: Regulation 2-1-403]
27. The VOC capture efficiency of each of the enclosures around Treater Machines S-402 and S-404, respectively, shall be equal to or greater than 97%. A differential pressure monitoring devices shall be installed on each enclosure to monitor compliance with the VOC capture efficiency. Except for the daily cleaning and resin changing period when several primary enclosure doors are open and the coating process is not in operation, the following exceedances shall be reported to the Compliance and Enforcement Division (basis: BACT):
- a. A primary enclosure three-hour running average higher (closer to zero) than -0.0014 inches water
 - b. A primary enclosure pressure limit higher than -0.001 inches water lasting for greater than 2 minutes
28. The temperature data collected from the temperature recorder as well as the differential pressure readings and the three-hour differential pressure averages shall be maintained in files which shall be available for District inspection for a period of at least five years following the date on which such data or reports are recorded or made. In addition to the temperature excursion records in part 26,

each differential pressure exceedance shall be noted and explanation given as to why the exceedance as reported or not. [basis: BACT]

29. In order to demonstrate compliance with parts 22 and 28 above, the Owner/operator shall perform District approved source tests annually, in accordance with the District's Manual of Procedures. The capture efficiency test shall be performed when the differential pressure is at -0.0015 inches water. The owner/operator shall notify the Manager of the District's Source Test section at least seven (7) days prior to each test, to provide the District staff the option of observing the testing. Within 45 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. (basis: Regulation 2-1-403)

Conditions for S-408 mix tank:

30. The owner/operator shall not process more than 500 gallons in any one day and 50,000 gallons in any one year of varnish at S-408. (basis: Cumulative Increase)
31. The owner/operator shall not use more than 8 gallons in any one day and 200 gallons in any one year of dimethyl formamide for cleanup at S-408. (basis: Cumulative Increase)
32. The owner/operator shall only process the following solvents at S-306:
dimethyl formamide
Methyl cellosolve (R) acetate
toluene
n-methylpyrrolidone electronic
(basis: Cumulative Increase)
33. The owner/operator may use solvents other than the material specified in Parts 30, 31, and 32 in S-408, provided that the owner/operator can demonstrate to the satisfaction of the APCO, through monthly recordkeeping and VOC calculations, that the use of these materials does not increase toxic emissions above any risk screening trigger levels of Regulation 2-5, Table 2-5-1, and the following process loss emission limits are not exceeded in any consecutive twelve month period:
VOC 229.5 lbs (basis: Cumulative Increase, Toxics Trigger)
34. The owner/operator shall record the varnish throughputs and the total usage of dimethyl formamide, Methyl cellosolve (R) acetate, toluene and n-methylpyrrolidone electronic at S-408 in a log every time S-408 is in use. The owner/operator shall retain all entries for at least 5 years from the date of entry. The owner/operator shall keep the log shall on site and made it available for the District staff upon request. (basis: Cumulative Increase).
35. The owner/operator shall store the spent and fresh dimethyl formamide in closed containers. The owner/operator shall use closed containers to store or dispose of cloth or paper used for solvent cleanup. (basis: Reg 8-12-305)

36. The owner/operator shall abate S-408 with A-500 Thermal Oxidizer at all times of S-408's operation. (basis: BACT)

For S-409, 410 Heated Presses

37. The owner/operator shall not press more than 30,000,000 square feet of laminate sheets at presses S-409 and S-410 in any consecutive 12 month period. (basis: cumulative increase)
38. On a monthly basis, the owner/operator shall record in a District approved log the total square footage of laminates pressed at each of S-409 and S-410. The owner/operator shall retain this log for at least 5 years from date of entry. The owner/operator shall keep it on site and make it available to the District staff upon request. (basis: Cumulative Increase)

For A-600 Incinerator:

39. The owner/operator shall operate this abatement device at a control efficiency of 95% or greater on a mass basis. (basis: BACT)
40. The owner/operator shall maintain the incineration temperature at 750 degrees Fahrenheit or higher as necessary to meet the required destruction efficiency. (basis: Cumulative Increase)
41. In order to determine compliance with part 40, the owner/operator shall equip A-600 with a continuous temperature measuring instrumentation consisting of at least 1 thermocouple temperature probe in the catalytic oxidizer. The owner/operator shall make available the temperature log to the District upon request and keep it for a period of five years. (basis: Regulation 1-521)
42. The temperature limit in Part 40 shall not apply during an "Allowable Temperature Excursion" below the limit, provided that the temperature controller set point complies with the temperature limit. An Allowable Temperature Excursion is one of the following:
- a. A temperature excursion not exceeding 20 degrees F; or
 - b. A temperature excursion for a period or periods which when combined are less than or equal to 15 minutes in any hour; or
 - c. A temperature excursion for a period or periods which when combined is more than 15 minutes in any hour, provided that all three of the following criteria are met.
 - i. the excursion below the limit does not exceed 50 degrees F;
 - ii. the duration of the excursion does not exceed 24 hours; and
 - iii. the total number of such excursions does not exceed 12 per calendar year (or any consecutive 12-month period).
- Two or more excursions below the limit greater than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit. [basis: Regulation 2-1-403]

43. For each Allowable Temperature Excursion below the limit that exceeds 20 degrees F. and 15 minutes in duration, the Owner/operator shall keep sufficient records to demonstrate that they meet the qualifying criteria described above. Records shall be retained for a minimum of five years from the date of entry, and shall be made available to the District upon request. Records shall include at least the following information:
- Temperature controller set point;
 - Starting date and time, and duration of each Allowable Temperature Excursion below the limit;
 - Measured temperature during each Allowable Temperature Excursion below the limit;
 - Number of Allowable Temperature Excursions below the limit per month, and total number for the current calendar year; and
 - All strip charts or other temperature records.
[basis: Regulation 2-1-403]
44. In order to demonstrate compliance with part 39 above, the Owner/operator shall perform a District approved source test annually, in accordance with the District's Manual of Procedures. The Owner/operator shall notify the Manager of the District's Source Test section at least seven (7) days prior to the test, to provide the District staff the option of observing the testing. Within 45 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. (basis: Regulation 2-1-403)
45. The owner/operator shall maintain the temperature data collected from the temperature recorder in a file. The owner/operator shall make the file available for District inspection for a period of at least five years following the date on which such data or reports are recorded or made. [basis: BACT]

Facility Wide Conditions

46. In accordance with the provisions of Regulation 2-4-414, should the facility precursor organic compound (POC) emissions ever equal or exceed 35 tons per year, on a pollutant specific basis, the facility owner/operator shall reimburse the District with emission reduction credits for all offsets of that pollutant provided from the Small Facility Banking Account or its predecessor, the Small Facility Bank. (basis: Regulation 2-4-414)
47. The owner/operator shall calculate and maintain records on a monthly basis of the quantities of POC emitted into the atmosphere from all sources at the facility. The owner/operator shall use the manufacturer's chemical speciation data or the MSDS information to calculate the POC emission. For abated operations, the abatement efficiency shall be considered to be the abatement efficiency achieved in the most recent source test. Within 30 days of the end of each month the POC emission must be totaled for the last consecutive 12-month period to ensure compliance with Part 1. A summary of these records shall be submitted to the

District's Director of Compliance & Enforcement on an annual basis. (basis: Regulation 2-4-414)

48. To determine the emission compliance in Part 1, the owner/operator of this source shall maintain the following data on a daily basis:
- a. operating time of all sources.
 - b. amount and type of coating applied, by use of a daily measurement and a daily District approved log.
 - c. amount of clean-up solvent used.
 - d. amount of laminates pressed.
 - e. charts from the temperature recorder at each thermal oxidizer.
 - f. all invoice records of coatings and solvents purchased.
 - g. thinning ratios for respective coatings being thinned.
 - h. maintain records of Material Safety Data Sheets (MSDS) or other product information identifying the POC content and individual HAP contents for each of the solvent-containing materials used at all sources
 - i. calculate monthly emissions of POC and individual HAPs from each source as listed in part 1, based on the quantities of materials used and the chemical composition information from the associated Material Safety Data Sheets (MSDS)
 - j. calculate total POC and individual HAP emissions from the total of all sources for each month, and on a rolling 12-month basis.
 - k. If the emission of any single HAP exceeds 0.75 tons per month or if the emission of total HAPs exceed 1.9 tons per month, the owner/operator shall submit a report to the District detailing how emissions will be maintained below the annual limits.
 - l. If the rolling 12-month emission of any single HAP exceeds 8.1 tons per year or the emission of total HAPs exceed 20.7 tons per year, , the owner/operator shall submit a report to the District detailing how emissions will be maintained below the annual limits.

Records shall be available for District inspection for a period of at least five years following the date on which such data or reports are recorded or made.

[basis: BACT, Cumulative Increase, Synthetic minor]

49. The Owner/Operator shall prepare an annual emissions report. The report shall contain the following items for the year ending April 1:
- a. Monthly report on each individual HAP and total individual HAP emissions for the rolling 12 month period.
 - b. Monthly report on each POC and total POC emissions for the rolling 12 month period.

This report shall be submitted to the Director of Compliance and Enforcement by June 1 of each year.

[basis: Synthetic Minor]

50. Together with the annual emissions report, the owner/operator shall submit an annual certification of compliance, signed by the owner/operator's responsible

official. The certification shall read: "Under penalty of perjury, I certify the following: based on information and belief formed after reasonable inquiry, the owner/operator facility has been in compliance with the synthetic minor conditions for the following period of time:_____"

51. The owner/operator shall report non-compliance with any of the conditions in writing to the Director of Compliance and Enforcement within 10 calendar days of discovery of non-compliance.
[basis: Synthetic Minor]

Date

Eric Chan
Air Quality Engineer II