HALOGENATED SOLVENT CLEANER NESHAP

Initial Notification Report for Existing* Machines

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

*Existing cleaning machines are cleaners installed on or before November 29, 1993.

HALOGENATED SOLVENT CLEANER NESHAP

Initial Notification Report for Existing* Machines

PART TWO - Information Required per Machine
(Make copies for additional machines if needed)

Cleaner Identificaiton Number:_____

1. Type of machine (check one):

   _____Batch vapor _____In-line

2. Solvent/air interface area _____ square meters (or square inches).

3. Existing controls

   _____Freeboard ratio of 1.0 _____Carbon adsorber
   _____Freboard refirgeration device _____Reduced room draft
   _____Super-heated vapor _____Dwell
   _____Working-mode cover
   _____Other_____
   Control

4. Date of installation (attach documentation):_____

5. Anticipated compliance approach

   _____Basic equipment standard _____Idling limit
   _____Alteranative standard

6. Annual estimate of halogenated HAP solvent consumption:

   _____kilograms/year (or pounds/year)

*Existing machines are cleaners installed on or before November 29, 1993.

HALOGENATED SOLVENT CLEANER NESHAP

Initial Notification Report for New* Machines

(Application for Approval of Construction or Reconstruction)

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

*New cleaning machines are cleaners installed after November 29, 1993.

HALOGENATED SOLVENT CLEANER NESHAP

Initial Notification Report for New* Machines

PART TWO - Information Required per Machine
(Make copies for additional machines if needed)

Cleaner Identificaiton Number:_____

1. Type of machine intended for construction/reconstruction (check one):

   _____Batch vapor _____Cold in-line _____Vapor in-line

2. Solvent/air interface area _____ square meters (or square inches).

3. Existing controls

   _____Freeboard ratio of 1.0
   _____Freboard refirgeration device
   _____Super-heated vapor
   _____Working-mode cover
   _____Carbon adsorber
   _____Reduced room draft
   _____Dwell
   _____Other_____
   Control

4. Proposed construction or reconstruction commencement date:_____

5. Expected contruction or reconstruction completion date:_____

6. Anticipated compliance approach

   _____Basic equipment standard
   _____Alteranative standard
   _____Idling limit

7. Annual estimate of halogenated HAP solvent consumption:

   _____kilograms/year (or pounds/year)

*New machines are cleaners installed after November 29, 1993.

HALOGENATED SOLVENT CLEANER NESHAP

Initial Statement of Compliance for Machines Complying with the Equipment Standard

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

HALOGENATED SOLVENT CLEANER NESHAP

Initial Statement of Compliance for Machines Complying with the Equipment Standard

PART TWO - Information Required per Machine
(Make copies for additional machines if needed)

Cleaner Identificaiton Number:_____

1. Type of machine (check one):

   _____Batch vapor _____In-line

2. Solvent/air interface area _____ square meters (or square inches).

3. Equipment standard compliance method chosen:

   _____Control combination
   _____Idling emission limit (idling emission limit test report attached)

4. Control equipment used to comply with the rule:

_____Freeboard ratio of 1.0	_____Carbon adsorber
_____Freboard refirgeration device	_____Reduced room draft
_____Super-heated vapor	_____Dwell
_____Working-mode cover	
_____Other_____ Control	Other_____ Control
_____Other_____ Control	Other_____ Control

HALOGENATED SOLVENT CLEANER NESHAP
Initial Statement of Compliance with the Equipment Standard, cont.

5. Monitoring parameters and values:

Control (Check all that apply)	Measured Parameter	Compliance Parameter Value
☐ Freeboard Refrigeration Device	· Temperature at the center of the air blanket while idling	· ≤ 30 percent of the solvent boiling point.
☐ Cover (Working and idling-mode)	· Use, function and integrity	· Opens and closes properly · Closed except during parts entry and removal · Closes completely · Free of cracks, holes, or other defects
☐ Dwell	· Period of time parts are held in the solvent cleaning freeboard area above the vapor zone after being cleaned.	· Determine for each of your parts or parts baskets you clean, or, · Determine using the most complex part type or parts baskets you clean.
☐ Superheated Vapor System	· Temperature at the center of the super-heated vapor zone while idling	· At least 10°F above the solvent's boiling point
☐ Reduced Room Draft	· Windspeed - Room parameters (e.g., enclosure*) 1. _____ 2. _____ 3. _____ 4. _____	· ≤ 15.2 meters per minute (50 feet per minute) 1. _____ 2. _____ 3. _____ 4. _____
*If a full or partial enclosure is used to achieve the reduced room draft for your cleaning machine, attach the initial monitoring test.		
☐ Carbon Adsorber	· Working-mode exhaust halogenated solvent concentration (weekly measurement records of the exhaust halogenated solvent concentration attached)	· ≤ 100 ppm
☐ Other		

HALOGENATED SOLVENT CLEANER NESHAP

Initial Statement of Compliance for Machines Complying with the Alternative Standard

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

HALOGENATED SOLVENT CLEANER NESHAP

Initial Statement of Compliance for Machines Complying with the Alternative Standard

PART TWO - Information Required per Machine
(Make copies for additional machines as necessary)

Cleaner Identification Number:_____

1. Type of machine (check one):

   _____Batch vapor _____In-line

2. a) Solvent/air interface area:_____square meters (or square feet), or

   b) Cleaning capacity:_____cubic meters (or cubic feet), if your cleaning machine does not have a solvent/air interface area (calculation method and results for this determination attached).

3. The first 3-month average emissions is _____kilograms per month (or pounds per month) (calculation sheets are attached).

HALOGENATED SOLVENT CLEANER NESHAP

Annual Report

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

HALOGENATED SOLVENT CLEANER NESHAP

Annual Report

PART TWO - Information Required per Machine
(Make copies for additional machines as necessary)

Cleaner Identification Number:_____

Check compliance option chosen and fill out appropriate report requirements.

☐ Control Options

All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the required operator test.

_____ _____
Signature Date

Previous year's solvent consumption _____kg/yr (or lb/yr).

☐ Alternative Standard

Cleaning machine size:

Solvent/air interface area _____m^2 (or ft^2)
or
Solvent cleaning capacity_____m^2 (or ft^2)

Average monthly solvent consumption_____kg (or lb)

Three month rolling average emission estimates (calculations attached):	1._____kg (or lb)	From _____ Date	To _____ Date
	1._____kg (or lb)	From _____ Date	To _____ Date
	1._____kg (or lb)	From _____ Date	To _____ Date

HALOGENATED SOLVENT CLEANER NESHAP

Annual Report

PART THREE - Information Required per Machine
(Make copies for additional machines as necessary)

☐ Facility-wide Emission Limit

12-month rolling total emission estimate (calculations attached):	_____Kg/yr (or lb/yr)	From _____ Date	To _____ Date
Average monthly solvent consumption (calculations attached):	_____Kg/month (or lb/month)	From _____ Date	To _____ Date

HALOGENATED SOLVENT CLEANER NESHAP

Exceedance Report

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

HALOGENATED SOLVENT CLEANER NESHAP

Exceedance Report

PART TWO - Information Required per Machine
(Make copies for additional machines as necessary)

Cleaner Identification Number:_____

Check appropriate box and answer the requested information.

☐ Exceedance

Exceedance the occurred:_____

Date of occurrence:_____

Actions taken:

_____

_____

_____

_____

_____

_____

Results of actions:

_____

_____

_____

_____

_____

_____

☐ No exceedance occurred.

HALOGENATED SOLVENT CLEANER NESHAP

Initial Notification Report for Batch Cold Cleaning Machines

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

*Existing cleaning machines are cleaners installed on or before November 29, 1993.

HALOGENATED SOLVENT CLEANER NESHAP

Initial Notification Report for Batch Cold Cleaning Machines

PART TWO - Information Required per Machine
(Make copies for additional machines if needed)

Cleaner Identificaiton Number:_____

Cleaning Machine Type (circle one): Immersion Remote-reservoir

Machine Installation Date: _____

Anticipated equipment control combination compliance approach (sircle one):

Cover and Water Layer	Cover and a 0.75 Freeboard Ratio or Greater with Work Practices	Cover with Work Practices

Annual solvent consumption estimate: _____ kg/yr (or lb/yr).

HALOGENATED SOLVENT CLEANER NESHAP

Compliance Report for Batch Cold Cleaners

PART ONE - General Information

Person Preparing Report:_____ Date:_____
Last, First, MI

Company Name:_____

Mailing Address:_____
Number, Street, City/Town, State, Zip Code

Equipment
Location Address:_____
Number, Street, City/Town, State, Zip Code

Cleaning Machine Summary

Identification Number	Description

*Existing cleaning machines are cleaners installed on or before November 29, 1993.

HALOGENATED SOLVENT CLEANER NESHAP

Compliance Report for Batch Cold Cleaners

PART TWO - Information Required per Machine
(Make copies for additional machines if needed)

Cleaner Identificaiton Number:_____

Cleaning Machine Type (circle one): Immersion Remote-reservoir

This batch cole cleaner complies with the rule.

_____ _____

Signature Date

Method of compliance (circle one):

Cover and Water Layer	Cover and a 0.75 Freeboard Ratio or Greater with Work Practices	Cover with Work Practices

HALOGENATED SOLVENT CLEANER NESHAP

COMPLIANCE DETERMINATION WORKSHEET

Cleaner Identification Number	Use Halogenated Solvent?[a]	New or Existing ?		Pick One			Solvent Air Interface Area?	Other[b]
		N	E	Batch Cold	Batch Vapor	In-line		

[a] Greater than 5 persent.

[b] Miscellaneous notes, including cleaning capacity if machine is a batch vapor cleaning machine with no solvent air interface.

HALOGENATED SOLVENT CLEANER NESHAP

Automated Parts Handling - Hoist Speed Recordkeeping Form

Cleaning Machine Identification Number:_____

Machine Type (circle one): Batch Vapor In-line

Maximum Allowable Hoist Speed - 3.4 meters per minute (11 feet per minute)

Date/ Initials[a]	(1) Distance Moved (meters or feet)[b]	(2) Time Elapsed (minutes)	Hoist Speed (1)*(2) (meters or feet per minute	Distance Description[c] (Starting point/ending point)

[a] Date of inspection and initials of employee conduction inspection.
[b] Circle appropriate unit.
[c] e.g., Left rim/Right rim

HALOGENATED SOLVENT CLEANER NESHAP

Carbon Adsorber Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line

Maximum allowable outlet concentration of the covered solvents: 100 ppm

Date/ Initials[a]	Outlet Concentration (ppm)	Date/ Initials[a]	Outlet Concentration (ppm)

[a] Date of inspection and initials of employee conducting inspection.

HALOGENATED SOLVENT CLEANER NESHAP

Cover Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Cold Batch Vapor In-line

Date/Initials[a]	Opening & Closing Properly[b]		Completely Covers Openings[b]		Free of Cracks, Holes and Other Defects	
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N
	Y	N	Y	N	Y	N

[a] Date of inspection and initials of employee conducting inspection.
[b] Circle appropriate answer: Y = Yes, N = No.

HALOGENATED SOLVENT CLEANER NESHAP

Dwell Determination Test Recordkeeping Form

Cleaning Machine Identification Number: _____

Parts Description: _____

Date/Initials[a]		Time for Parts to Stop Dripping in Vapor Zone (seconds)	Individual Dwell Times (seconds)
	Run 1	x 0.35 =	
	Run 2	x 0.35 =	
	Run 3	x 0.35 =	
		Total	/3 = Seconds = Proper Dwell Time

Cleaning Machine Identification Number: _____

Parts Description: _____

Date/Initials[a]		Time for Parts to Stop Dripping in Vapor Zone (seconds)	Individual Dwell Times (seconds)
	Run 1	x 0.35 =	
	Run 2	x 0.35 =	
	Run 3	x 0.35 =	
		Total	/3 = Seconds = Proper Dwell Time

[a] Date of test and initials of employee conducting test.

HALOGENATED SOLVENT CLEANER NESHAP

Dwell Measurement Test Recordkeeping Form

Cleaning Machine Identification Number: _____

Parts Description: _____

Proper Dwell Time: _____

Date/ Initials[a]	Actual Dwell (seconds)	Date/ Initials[a]	Actual Dwell (seconds)

[a] Date of inspection and initials of employee conducting inspection.

HALOGENATED SOLVENT CLEANER NESHAP

FRD[a] Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line Solvent:_____

FRD Temperature Requirement:

Date/ Initials[b]	Temperature (°F)	Date/ Initials[b]	Temperature (°F)

[a] FRD = Freeboard Refrigeration Device.

[b] Date of inspection and initials of employee conducting inspection.

HALOGENATED SOLVENT CLEANER NESHAP

Reduced Room Draft Initial Windspeed Test

Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line

Reduced room draft requirement: Less that or equal to 15.2 meters per minute (50 feet per minute). Complete A or B, and C.

A. For controlling Room Parameters:

	Windspeed (meters or feet per minute)		
	Test 1	Test 2	Test 3
Corner C_1			
Corner C_2			
Corner C_3			
Corner C_4			
Average Windspeed $=C_1+C_2+C_3+C_4/4$			

B. For An Enclosure:

Maximum enclosure windspeed _____ (meters or feet per minute).

C. Description of room parameters or enclosure:

_____

_____

_____

_____

_____

HALOGENATED SOLVENT CLEANER NESHAP

Reduced Room Draft Windspeed Mearurements

Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line

If using room parameters, measure windspeed quarterly and check room parameters weekly. If using an enclosure, measure windspeed and check enclosure monthly.

Date/ Initials[a]	Windspeed (meters or feet per min.)	Date/ Initials[a]	Windspeed (meters or feet per min.)

[a] Date of inspection and initials of employee conducting inspection.

HALOGENATED SOLVENT CLEANER NESHAP

SHV[a] Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line

SHV Temperature Requirement: _____

Date/ Initials[a]	Temperature (°F)	Date/ Initials[a]	Temperature (°F)

[a] SHV = Super Heated Vapor.

[b] Date of inspection and initials of employee conducting inspection.

HALOGENATED SOLVENT CLEANER NESHAP

Annual Solvent Consumption

Year	Cleaner Identification Number	Type of Cleaner			Annual Solvent Consumption (kilograms or pounds)	Other[a]
		Batch Cold	Batch Vapor	In-line		

[a] Miscellaneous notes, including method used to determine annual consumption estimate (e.g., mass balance) and reference to appropriate calculation sheets.

HALOGENATED SOLVENT CLEANER NESHAP

Overall Emissions Limit Monthly Emissions Recordkeeping Form

(For Machines That Have a Solvent-Air Interface Area)

Cleaner Identification Number: _____

Month/Year	SA (1)	LSR (2)	SSR (3)	AREA (4)	Monthly Emissions $\frac{(1) - [(2) + (3)]}{3}$

SA = Amount of halogenated solvent added (kilograms of solvent added [or pounds of solvent added]) that month.

LSR = Amount of halogenated solvent removed (kilograms of solvent removed [or pounds of solvent removed]) that month.

SSR = Amount of halogenated solvent removed from the cleaning machine in solid waste (kilograms of solvent removed [pounds of solvent removed]) that month.

AREA = Amount of halogenated solvent removed from the machine in solid waste (kilograms of solvent removed [or pounds of solvent removed]).

HALOGENATED SOLVENT CLEANER NESHAP

Overall Emissions 3-Month Rolling Average Monthly Emissions Recordkeeping Form

Cleaner Identification Number: _____

Month/Year	E_1 (1)	E_2 (2)	E_3 (3)	3-Month Rolling Average Monthly Emissions $\frac{(1) + (2) + (3)}{3}$

E_1 = Monthly emissions (kilograms per square meter [or pounds per square foot]) for the current month.

E_2 = Monthly emissions (kilograms per square meter [or pounds per square foot]) for the previous month.

E_3 = Monthly emissions (kilograms per square meter [or pounds per square foot]) from two months prior.

HALOGENATED SOLVENT CLEANER NESHAP

Idling Emission Limit Initial Test Recordkeeping Form

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line

Date: _____ Run: _____

Solvent Type: _____

Solvent d\Density (r): _____

Length of Boiling Sump (S_B), m (or ft): _____

Width of Boiling Sump (W_B), m (or ft): _____

Length of Immersion sump (S_I), m (or ft): _____

Width of Immersion Sump (W_I), m (or ft): _____

Length of Solvent Vapor/Air Interface (S_V), m (or ft): _____

Width of Solvent Vapor/Air Interface (W_V), m (or ft): _____

Clock Time	Boiling Sump Reading (cm or inches)	Immersion Sump Reading	Windspeed Flow Rate Reading (meters or feet per minute)
6:00 am	L_{Bi} =	L_{Ii} =	
10:00 pm	L_{Bf} =	L_{If} =	

HALOGENATED SOLVENT CLEANER NESHAP
Idling Emission Limit Initial Test
Recordkeeping Form (Continued)

Cleaning Machine Identification Number: _____

Machine Type (circle one): Batch Vapor In-line

From the data the following calculations can be made:

1. Area of Solvent/Air Interface:

$$A_V = S_V * W_V$$

$$A_V = \_\_\_\_\_$$

Where:

A_V = area of solvent/air interface, m^2 (or ft^2);

S_V = length of solvent/air interface, m^2 (or ft); and,

W_V = width of solvent/air interface, m^2 (or ft).

2. Calculation of Sump Interfaces

Boiling Sump -

$$A_B = S_B * W_B$$

$$A_B = \_\_\_\_\_$$

Where:

A_B = area of the boiling sump interface, m^2 (or ft^2);

S_B = length of boiling sump, m (or ft); and,

W_B = width of the boiling sump, m (or ft).

HALOGENATED SOLVENT CLEANER NESHAP
Idling Emission Limit Initial Test
Recordkeeping Form (Continued)

Immersion Sump -

$$A_I = S_I * W_I$$

$$A_I = \_\_\_\_\_$$

Where:

A_I = area of the immersion sump interface, M^2 (or ft^2);

S_I = length of the immersion sump, m (or ft); and,

W_I = Width of the immersion sump, m (or ft).

3. Calculation of the Emmision Rate

$$E = \frac{(L_{Bf} - L_{Bi})\rho A_B + (L_{If} - L_{Ii})\rho A_I}{KA_V q}$$

Where:

L_{Bf} = final boiling sump inclined liquid level indicator reading, cm (or in);

L_{Bi} = initial boiling sump inclined liquid level indicator reading, cm (or in);

L_{If} = final immersion sump inclined liquid level indicator reading, cm (or in);

L_{Ii} = initial immersion sump inclined liquid level indicator reading, cm (or in);

ρ = density of solvent, g/m^3 (or lb/ft^3);

A_B = area of boiling sump interface, m^2 (or ft^2);

A_I = area of immersion sump interface, m^2 (or ft^2);

K = 100,000cm*g/m*kg (or 12 in/ft);

A_V = area of solvent-air interface, m^2 (or ft^2); and,

q = test time, hr.

Calculation: