

Appendix G Facility Background Questionnaire

This Appendix provides a reproduction of the blank questionnaire on facility background as it appeared when sent to the printers for completion.

FACILITY BACKGROUND QUESTIONNAIRE
Design for the Environment Screen Printing Project

1. Business Profile

a. Products

Approximately what percentage of your products are printed on the following substrates? (Please check all boxes that apply).

	< 50%	50 - 95%	95 - 100%
Plastics (rigid/flexible)			
Paper (coated or uncoated)			
Metal			
Ceramic			
Glass			
Other (specify)			

b. Please list the major products produced at your facility:

c. Approximately what percentage of your shippable product, by sales dollars, is produced through screen printing? _____

d. Approximately how long is your typical run? _____

e. Approximately what percentage of your orders are repeat orders? _____

2. Screen Reclamation Operations

a. Screen Size: Specify the average size frame used at your facility: _____ (*ft² or in²*)

b. Tracking: Describe how your screens are tracked or numbered in the facility:

c. Volume:

What is the average number of screens cleaned/reclaimed each day for future use?

(Please check the appropriate box)

0 - 5..... 5 - 10..... 10 - 15..... > 15..... (*specify _____*)

d. Employees

Please fill in the table below. For the purposes of this questionnaire, "Ink Removal" is not defined as press-side operations, unless this is the only site used for ink removal. Assume a 5-day work week with one 8-hour shift each day. Please check all boxes that apply.

Number of Employees at this Location	Number of Employees Involved in Ink Removal	Number of Employees Involved in Screen Cleaning/Reclamation	Average time (hr/day) a single individual is involved w/ ink removal	Average time (hr/day) a single individual is involved w/screen cleaning/reclaiming
0 - 5	1 - 3	1 - 3	< 1	< 1
6 - 10	4 - 6	4 - 6	1 - 2	1 - 2
11 - 15	7 - 10	7 - 10	3 - 4	3 - 4
16 - 30	> 11	> 11	5 - 6	5 - 6
	specify _____	specify _____		
31 - 50			7 - 8	7 - 8
> 50			other, specify _____	other, specify _____

e. Ink Removal and Screen Reclamation Areas

Do you have separate areas for ink removal and screen reclamation activities? ("Ink removal" is defined as activities after excess ink is carded off. It does not refer to ink removal activities *during* the process).

Yes..... No.....

- If "yes", check all that apply in the first four columns of the table below.
- If "no", check all boxes that apply in the last two columns of the table below.

<i>Separate areas for ink removal and screen cleaning/reclamation activities</i>				<i>Combined Ink Removal/ Screen Reclamation Areas</i>	
Ink Removal Area (ft²)	Type of Ventilation	Screen Reclamation Area (ft²)	Type of Ventilation	Size of Combined Area (ft²)	Ventilation
< 20	local (mechanical)	< 20	local (mechanical)	< 20	local
20 - 50	plant (facility-wide)	20 - 50	plant (facility-wide)	20 - 50	plant
50 - 100	natural	50 - 100	natural	50 - 100	natural
100 - 200	other (specify):	100 - 200	other (specify):	100 - 200	other (specify):
> 200 (specify): _____		> 200 (specify): _____		> 200 (specify): _____	

3. Rates

- a. Record the electric rate: _____
- b. Record the water rate: _____
- c. Record the sewer rate: _____
- d. Record the screen reclamation employee's wage rate: _____
- e. Record the printer's wage rate: _____ *(Use the rate for the printer who would determine if the print image quality is acceptable).*

4. Current Ink Remover Procedures (NOT process cleaning)

- a. What type of ink(s) do you use?

- b.** Do you recycle ink removal products? Yes..... No.....
- Do you recycle on-site or off-site?
 - Do you use the recycled product in-house? Yes..... No.....
If so, how much do you use annually? _____ gallons
 - If recycled off-site, does the recycler sell the recycled product?
 - What are the costs and income associated with recycling ink removal products?

c. What is the average number of screens/day where ink remover is applied? _____

d. Describe the current method of applying ink remover:

e. Do you use a pressure washer (or other equipment) for ink removal?

- If so, specify the type of equipment, and the manufacturer and model (from nameplate):
- Specify the pressure (psi) and flowrate (gpm):
- What are the equipment energy use specifications (from nameplate):
- How long is it in use for each screen?

f. Fill in the table on the next page for each of your ink remover products.

Current Ink Removal Practices

Ink Removal Product (trade name and description)	Annual Volume of Product Purchased (gallons)	Cost of Ink Removal Product (\$/gallon)	Type of Ink with which Product Works Best	Personal Protective Equipment Used	Method of Applying Ink Removal Product	Materials Used to Loosen Ink	Avg # of Rags Used/Screen to Remove Ink
			Solvent-based	Gloves	Pour from container onto screen surface	Brush	0-2
			UV Curable	Eye Protection	Dip rag or brush into container and wipe screen	Squeegee	2-4
			Water-based	Aprons	Spray on w/ nozzle from tank	Disposable rag	4-6
			Any	Respiratory protection	Spray on with spray bottle	Reusable rag	6-8
				Barrier Cream	Use specialized spraying equipment (specify)	Other (specify):	8-10
				None Used	Other (specify)		Other (specify):

f. List the types of materials used in ink removal that are frequently replaced (such as brushes, squeegees, wipes and filters) and their costs. Note how often they are replaced and how much of your time does it take to order replacements?

5. Current Emulsion Remover Practices

a. Fill in the following information and the table below for each type of emulsion removal product you currently use:

Trade Name _____

Volume purchased in 1993 (gal.) _____

Generic product description _____

Purchase Price (\$/gal.) _____

Average # of screens/day where emulsion remover is applied: _____

Personal Protective Equipment Used	Method of Applying Emulsion Removal Product	Equipment or Materials Used to Remove Emulsion	Equipment or Materials Description <i>(Include manufacturer, model #, pressure (psi) and flow rate (gpm) if applicable, frequency of replacement, equipment energy requirements)</i>
Gloves	Pour from container onto screen surface	Brush	
Eye Protection	Dip rag or brush into container and wipe screen		
Aprons			
Respiratory protection	Spray on with nozzle from tank		
Barrier cream	Spray on with spray bottle		
Ear Protection	Use specialized spraying equipment (specify)		
None Used	Other (specify)		
Other (specify):		Low pressure	

	water spray	
	High-pressure water spray	
	Water-blaster	
	Automatic Screen Cleaning System	
	Disposable Rag	
	Reusable Rag	
	Other (specify):	

6. Current Haze Remover Practices

a. Fill in the following information and the table below for each type of haze removal product you currently use:

Trade Name _____

Generic product description _____

Average % of screens reclaimed where haze remover is applied: _____

Volume purchased in 1993 (gal.) _____

Purchase Price (\$/gal.) _____

APPENDIX F. SCREEN PRINTERS TECHNICAL FOUNDATION (SPTF) TESTING METHODOLOGY

Personal Protective Equipment Used	Method of Applying Haze Removal Product	Equipment or Materials Used to Remove Haze	Equipment or Materials Description <i>(Include manufacturer, model #, pressure (psi) and flow rate (gpm) if applicable, frequency of replacement, equipment energy requirements)</i>
Gloves Eye Protection Aprons Respiratory protection Barrier cream None Used Other (specify):	Pour from container onto screen surface Dip rag or brush into container and wipe screen Spray on with nozzle from tank Spray on with spray bottle Use specialized spraying equipment (specify) Other (specify)	Brush	
		Low pressure water spray	
		High-pressure water spray	
		Water-blaster	

	Automatic Screen Cleaning System	
	Disposable Rag	
	Reusable Rag	
	Other (specify):	

7. Materials Storage

a. Where do you store your ink removal and screen reclamation products and in what quantity? Please check one box for each column.

Storage Method	How is ink removal stored in the application area? <i>(check all that apply)</i>	How is ink removal stored in the storage room? <i>(check all that apply)</i>	How is emulsion remover stored in screen cleaning area? <i>(check all that apply)</i>	How is emulsion remover stored in storage area? <i>(check all that apply)</i>	How is haze remover stored in the cleaning area? <i>(check all that apply)</i>	How is haze remover stored in storage area? <i>(check all that apply)</i>
30- or 55-gallon drum with bung hole kept open						
30- or 55-gallon drum with bung hole kept closed						

APPENDIX F. SCREEN PRINTERS TECHNICAL FOUNDATION (SPTF) TESTING METHODOLOGY

30- or 55-gallon drum with top removed						
Open pail						
Closed pail						
Quart or smaller squirt bottle						
Safety can						
Safety cabinet						
Not kept in the press room						
Other (specify)						

8. Waste Disposal

a. Please indicate the quantity of waste you dispose of annually as hazardous waste for:
 spent solvent waste: _____ (gal. in bulk) OR _____ (# of 55 gal. drums)
 ink waste: _____ (gal. in bulk) OR _____ (# of 55 gal. drums)
 used shop rag waste _____ (gal. in bulk) OR _____ (# of 55 gal. drums)

b. Ink Removal and Screen Cleaning Wastes

Fill in the table below to describe the treatment and disposal methods used for waste (not only hazardous wastes) generated by the ink removal and screen cleaning/reclamation operations:

Ink Removal Area Wastes			Screen Cleaning/Reclamation Wastes		
Quantity Generated Annually (gal)	Method of Storage Prior to Treatment/ Disposal	Method of Treatment or Disposal	Quantity Generated Annually (gal)	Method of Storage Prior to Treatment/ Disposal	Method of Treatment or Disposal
	In closed containers	Filter or treat prior to disposal or recycle		In closed containers	Filter or treat prior to disposal or recycle
	In open containers	Send to recycler		In open containers	Send to recycler
	No specified container	Recycle on site		No specified container	Recycle on site
	Other (specify):	Discharge to sewer		Other (specify):	Discharge to sewer
		Dispose as hazardous waste			Dispose as hazardous waste
		Dispose as non-hazardous waste			Dispose as non-hazardous waste
		Other (specify)			Other (specify)

9. Drying

a. Are screens dried between ink removal and emulsion removal?
 - If yes, how are they dried? (air dried or dried with equipment such as fans, heater, etc.) - If drying equipment is used, note:
 - Duration of drying step:
 - Manufacturer and model of the equipment:
 - Energy use specifications:

- b.** Are screens dried between emulsion removal and haze removal?
 - If yes, how are they dried? (air dried or dried with equipment such as fans, heater, etc.)
 - If drying equipment is used, note:
 - Duration of drying step:
 - Manufacturer and model of the equipment:
 - Energy use specifications: