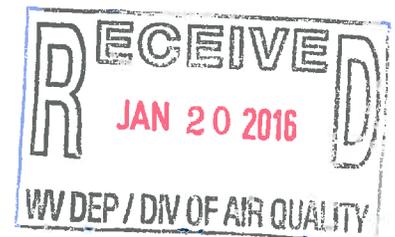


Site Permit Determination Application

S.P.M Flow Control, Inc
52 Norwins Drive
Buckhannon, West Virginia 26201



January 15, 2016



Oil & Gas
601 Weir Way
Fort Worth, TX 76108
USA

T 817-246-2461
F 817-246-6324
weir.co.uk

January 15, 2016

West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, West Virginia 25304

P: 304 926 0475
F: 304 926 0479

Re: Request for Site Permit Determination
SPM Flow Control, Inc
52 Norwins Dr
Buckhannon, West Virginia 26201

Dear Sir/Madam,

S.P.M. Flow Control, Inc. has prepared the attached site permit determination application for the above referenced site (site) to request for determination of permitting requirement for the site. The site is involved in refurbishing iron parts not limited to swivels, straight joints, sections and pipes.

If you have any questions regarding this package or site operations, please contact me at 817-248-2611.

Sincerely,

Weir SPM
Mike Dickerson
Environmental and Sustainability Engineer

Attachment: See list below

ATTACHMENTS

Attachment A – Facility Location Map

Attachment B – Process Flow Diagram

Attachment C – Process Description

Attachment D – Material Safety Data Sheets

Attachment E – Supporting Calculations

Table 1 – Emission Summary

Table 2 – Speciated Paint Emissions

Table 3 – Paint Emissions (PTE)

Table 4 – Fugitive Emissions

Appendix F – Permit Determination Form

Appendix G - Equipment Information

Attachment A

Facility Location Map

Date: 07/22/14 Project No: 94137504 Buckhannon Dam Layout: aerial - current - Layer: e



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.



Project Manager	BSS	Project No	94137504
Drawn By	JD	Scale	AS SHOWN
Checked By	BSS	Date	07/22/14
Approved By	BSS		

Terracon
 Consulting Engineers and Scientists
 (Registration No. 1-2372)
 1001 CASPENTER FOREWAY DALLAS, TEXAS 75242
 PH: 214.638-1170 FAX: 214.638-7379

AERIAL MAP

WEIR SPM
 52 NORWINS DRIVE
 BUCKHANNON, WEST VIRGINIA 26201

EXHIBIT
1

Attachment B

Process Flow Diagram

Attachment C

Process Description

1.0 Introduction

The site disassembles, inspects, rebuilds, and paints oilfield parts made of iron like swivels, straight joints, sections, pipes and pumps. In general, the process involves, inspection and evaluation of the equipment, disassembly, and then various stages of reconditioning are performed depending on the specific requirements per piece of equipment. Below is a description of various on-site processes:

1.1 Inventory Receipt

The iron parts and pumps arrive at the site and are dismantled. Emissions are not anticipated to be generated during the dismantling process.

1.2 Iron Parts Inspection and Parts Washing (2E, 3E, & 4E)

Iron parts and pumps are disassembled and visually inspected. The equipment and their components are washed in Inland Technologies IT-80 parts washers (2S, 3S, & 4S) using the Skysol solvent in a recirculating solid stream to remove dirt and grease. Fugitive Volatile Organic Compounds (VOCs) emissions are anticipated from the parts washers, but no emissions are expected to be generated during the inspection process.

1.3 Magnetic Particle Inspection

After the visual inspection and cleaning, iron parts and pumps are inspected using a magnetic particle inspection machine to check for material defects. Then the parts and pumps are sent for pressure testing. No emissions are expected to be generated during this inspection.

1.4 Pressure Testing

Iron parts and pumps are pressure tested using water. Iron parts and pumps meeting the specifications are sent for painting. Emissions are not anticipated to be generated during pressure testing.

1.5 Paint Booth and Paint Gun Cleanup (1E)

The site has an open front industrial paint booth with working dimensions of 14' in width by 15' in depth by 8'. The paint booth (1S) will operate with an exhaust rate of 10,700 cubic feet per minute (CFM).

Coatings are applied with one high volume low pressure (HVLP) spray gun with an individual delivery rate of one gallon per hour. For calculating emissions from the paint booth, the average spray rate of the gun is considered to be 1.0 gallons per hour. The paint booth is equipped with a filter capable of reducing particulate matter emissions by 98.81%. The painting operations are followed by curing where residual VOCs will be emitted. VOC emission calculations assume that the VOC in the coatings are completely emitted to account for emissions from coating and curing operations within the paint booth.

The facility utilized one painter per shift. The painter prepares iron parts or pumps on a mobile rack for painting and then loads the rack into the paint booth to begin painting operations. After coating is applied as per specifications, the rack with the iron parts or pumps is allowed to dry before unloading the rack out of the paint booth to prepare the iron parts or pumps for the next stage. It is estimated that it will take approximately 25 minutes to paint the iron parts or pumps and allow them to dry. Rest of the time in an hour will be spent in

preparation, loading, and unloading operations. Due to the physical constraints discussed above, the maximum paint time cannot exceed approximately 3,650 hours per year and will be used to determine the maximum potential to emit. Based on the proposed operating schedule (paint booth available for 8 hours per day, 5 days per week for 52 weeks) and the above discussed physical limitations, the anticipated hours of painting will be approximately 2080 hours per year. The paint gun is periodically cleaned using Inland Technologies IT-200 automated gun cleaner (5S) within the paint booth. The solvent used will be EP-921. Fugitive VOCs are expected to be generated from the gun cleaning and will be emitted through the paint booth stack (1E). MSDS of the coatings, solvents, and manufacturer's specifications for the paint booth, HVLP spray guns, and filter have been included in Appendix D & G of this application. Facility drawings are attached in Appendix A.

1.6 Reassembly, Inspection, and Shipping

Following painting, the parts and pumps are reassembled, a final inspection is performed and the iron or pump is ready for customer pick-up. Emissions are not expected to be generated during this process.

Attachment D

Material Safety Data Sheets

FULL DISCLOSURE MATERIAL SAFETY DATA SHEET

Date : January 4, 2016 Manufacturer : Pinnacle Coatings Address : 2705 Concord Rd Belle Chasse, LA 70037 Revision Date : January 4, 2016	Technical Contact: Patrick Hughes Phone : 214-678-0080 Fax : 469-227-8386 email : phughes@pinnaclecoatingsgroup.com
--	---

Product Name / Color :		Weir Baker Hughes Silver						
Manufacturers Product ID # :		PCG21092						
CAS Number	Solvent Species	HAP's	Wt./Gal Mixed	Wt. %	CAS Number	Particulate Matter (pigment, resin, filler, other)	HAP's	Wt./Gal Mixed
26300-99-2	Acrylonitrile Polymer	0	5.48	63.0%				
7732-18-5	Water	0	3.1	34.5%				
7429-90-5	Aluminum Flake	0	0.07	0.7%				
7632-00-0	Sodium Nitrile	0	0.16	1.8%				
Total Solvent VOC Content lbs/gal.			0					
Solvent VOC Content (less exempts) lbs/gal.			0					
Grand Total Weight per/Gal. Mixed (Coating Density)			8.81					

Note: HAP's are those constituents defined by regulation as "Hazardous Air Pollutants" per 40 CFR Part 63 Table 2 to Subpart F, and which must be measured and reported separately for permit compliance. Please submit information on form as per mixed coating.

MATERIAL SAFETY DATA SHEET

This form complies with OSHA Hazardous Communication Standard, 29 CFR 1910.1200.

SECTION I

Skysol[®]

Inland Technology Incorporated • 401 East 27th Street • Tacoma, WA 98421

Product Information: 1 (800) 552-3100

Transportation Emergencies: 1 (800) 255-3924

Date: April 26, 2013

MSDS No. 04129

Product Number: FS000

Synonyms: N/A

SECTION II - INGREDIENTS AND HAZARD IDENTIFICATION

Substances NOT considered hazardous by OSHA may also be listed.

COMPONENTS	CAS #	PEL	TLV	OTHER
C12-C13 Paraffinic Hydrocarbons	64742-48-9	Not listed	Not listed	
d-Limonene	5989-27-5	Not Listed	Not Listed	

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Initial Boiling Point: 340°F

Specific Gravity (H₂O=1): .77

Vapor Pressure (@ 25°C in mmHg): <1

Vapor Density (air=1): >5

Evaporation Rate (n-Butyl Acetate=1): <.1

Solubility: Not water soluble

Volatile by Volume: 100%

Appearance and Odor: Clear with mild citrus odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash point: 152°F PMCC

Flammable Limits: - LEL: .6% UEL: 7%

Extinguishing Media: Foam, water spray, dry chemical, carbon dioxide.

Special Fire Fighting Procedures: Wear air supplied breathing equipment for enclosed and confined spaces or as otherwise needed.

Unusual Fire and Explosion Hazards: None known.

SECTION V - REACTIVITY DATA

Chemical Incompatibility: Avoid contact with strong acids and strong oxidizing agents.

Hazardous Decomposition Products: CO₂, CO and hydrocarbons

Hazardous Polymerization: Will not occur

Stability: Stable

MATERIAL SAFETY DATA SHEET: Skysol®

Inland Technology Incorporated

Product Information: (800) 552-3100

Transportation Emergencies: (800) 255-3924

SECTION VI - HEALTH HAZARD DATA

Signs and Symptoms of Overexposure

Acute Health Effects: Product contacting eyes may cause eye irritation. Low order acute oral and dermal toxicity.

Chronic Health Effects: Prolonged or repeated skin exposure can lead to mild irritation, defatting and dermatitis.

Carcinogenic Ingredients: None

Primary Routes of Entry: Skin, eyes and inhalation.

Medical Conditions Aggravated by Exposure: May aggravate existing dermatitis.

Emergency and First-Aid Procedures:

Eyes: If eye contact occurs, flush with water for at least 15 minutes or until irritation subsides. If irritation persists, contact physician.

Skin: In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water.

Inhalation: If overcome by vapor, remove from exposed area and call physician immediately.

Ingestion: DO NOT induce vomiting; call physician immediately.

If conditions persist get medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Take in Case Material is Released: Shut off and eliminate all ignitable sources. Contain and collect material. Absorb residue.

Waste Disposal Method: Contact federal, state, county or local environmental regulatory agencies for guidance.

Handling and Storage: Use and store away from heat, sparks, and open flame. Keep container sealed when not in use.

SECTION VIII - CONTROL MEASURES

Personal Protection Equipment

Respirator: None normally required.

Gloves: Use chemical resistant gloves.

Eye Protection: Use splash goggles or face shield when eye contact may occur.

Other Protective Equipment: None normally required.

Workplace Considerations

Ventilation: Mechanical ventilation not normally required, unless product is heated or atomized in a confined space.

Engineering Controls: Eye wash or sterile eye rinse. Keep container closed. Do not store near heat, flame or other ignition sources.

Work Practices: Read and understand all cautions, labels, and MSDS before using this product.

Hygiene Practices: Do not have food or drink in the vicinity. Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Wash contaminated clothing before reuse.

Keep All Chemicals Out of the Reach of Children.

The information and recommendations contained herein are presented in good faith and believed to be correct and reliable to the best of Inland Technology's knowledge. Inland Technology, or its distributors, do not warrant or guarantee reliability, and shall not be liable for any loss or damage arising out of the use thereof. Contact Inland to confirm, in advance of need, that the information is current, applicable, and suitable to each circumstance.

MATERIAL SAFETY DATA SHEET

This form complies with OSHA Hazardous Communication Standard, 29 CFR 1910.1200.

SECTION I

EP-921™

Inland Technology Incorporated • 401 East 27th Street • Tacoma, WA 98421

Product Information: 1-800-552-3100

Transportation Emergencies: 1-800-255-3924

Date: April 26, 2013

MSDS No. 04112

Product Number: FE921

Synonyms: NSNs: 6850-01-381-4408 & 6850-01-381-3300

SECTION II - INGREDIENTS AND HAZARD IDENTIFICATION

Substances NOT considered hazardous by OSHA may also be listed.

COMPONENTS	CAS #	PEL	TLV	OTHER
Tripropylene glycol methyl ether	25498-49-1	Not Listed	Not Listed	
Propylene Carbonate	108-32-7	Not Listed	Not Listed	
d-Limonene	5989-27-5	Not Listed	Not Listed	

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Initial Boiling Point: 340 F

Specific Gravity (H₂O=1): .98

Vapor Pressure (@ 25°C in mmHg): <1

Vapor Density (air=1): >4.7

Evaporation Rate (n-Butyl Acetate=1): <.02

Solubility: Very slight (water)

Volatile by Volume: 17%

Appearance and Odor: Clear with mild citrus odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash point: 146°F PMCC

Flammable Limits: - LEL: .7% UEL: 6.1

Extinguishing Media: Foam, water spray, dry chemical, carbon dioxide.

Special Fire Fighting Procedures: Wear positive-pressure, self-contained breathing apparatus. Cool container with spray if possible.

Unusual Fire and Explosion Hazards: Auto ignition temperature approximately 460°F.

SECTION V - REACTIVITY DATA

Chemical Incompatibility: Avoid contact with strong acids and strong oxidizing agents.

Hazardous Decomposition Products: N/A

Hazardous Polymerization: Will not occur

Stability: Stable

MATERIAL SAFETY DATA SHEET: EP-921™

Inland Technology Incorporated

Product Information: (800) 552-3100

Transportation Emergencies: (800) 255-3924

SECTION VI - HEALTH HAZARD DATA

Signs and Symptoms of Overexposure

Acute Health Effects: Products contacting the eyes may cause eye irritation. Prolonged skin contact may cause redness and irritation. Swallowing large amounts can cause gastrointestinal disturbances.

Chronic Health Effects: Prolonged or repeated skin exposure can lead to mild irritation, defatting and dermatitis.

Carcinogenic Ingredients: None known

Primary Routes of Entry: Skin, and eyes.

Medical Conditions Aggravated by Exposure: None known.

Emergency and First-Aid Procedures:

Eyes: If eye contact occurs, flush with water for at least 15 minutes or until irritation subsides. If irritation persists contact physician.

Skin: In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water.

Inhalation: If overcome by vapor, remove from exposed area and call physician immediately.

Ingestion: DO NOT induce vomiting; call physician immediately.

If conditions persist get medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Take in Case Material is Released: Shut off and eliminate all ignitable sources. Contain and collect material. Absorb residue.

Waste Disposal Method: Contact federal, state, county or local environmental regulatory agencies for guidance.

Handling and Storage: Use and store away from heat, sparks, and open flame. Keep container sealed when not in use.

SECTION VIII - CONTROL MEASURES

Personal Protection Equipment

Respirator: Approved organic respirator if excessive mist or vapors are created.

Gloves: Use solvent-resistant gloves.

Eye Protection: Use splash goggles or face shield when eye contact may occur.

Other Protective Equipment: Boots, coveralls, aprons as necessary to prevent skin contact.

Workplace Considerations

Ventilation: Mechanical ventilation not normally required, unless product is heated, and/or is atomized in a confined space.

Engineering Controls: Eye wash or sterile eye rinse. Keep container closed. Do not store near heat or flame.

Work Practices: Read and understand all cautions, labels, and MSDS before using this product.

Hygiene Practices: Do not have food in the vicinity. Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Wash contaminated clothing before reuse.

Keep All Chemicals Out of the Reach of Children.

The information and recommendations contained herein are presented in good faith and believed to be correct and reliable to the best of Inland Technology's knowledge. Inland Technology, or its distributors, do not warrant or guarantee reliability, and shall not be liable for any loss or damage arising out of the use thereof. Contact Inland to confirm, in advance of need, that the information is current, applicable, and suitable to each circumstance.

Attachment E

Supporting Calculations

Table 1
 SPM Flow Control, Inc
 52 Norwinds Dr
 Buckhannon, West Virginia 26201
 FACILITY EMISSIONS SUMMARY (Potential to Emit)

Potential to Emit

Unit Name	Emission Source	Control	Emission Point	Max Operation Schedule (hrs/yr)	VOC Emission		PM Emissions (Uncontrolled)		PM Emissions (Controlled)		HAPs		Nox		CO		SO2	
					(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)
Paint Booth	1S	1C	1E	3650	0.000	0.00	0.74	0.40	0.0019	0.0011	0.00	0.00	-	-	-	-	-	-
Parts Washer	2S, 3S, & 4S	NA	2E, 3E, 4E	8760	0.193	0.40	-	-	-	-	-	-	-	-	-	-	-	-
Paint Gun Cleaner	5S	NA	1E	3650	0.021	0.09	-	-	-	-	-	-	-	-	-	-	-	-
Totals	-	-	-	-	0.213	0.49	0.74	0.40	0.0019	0.0011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Expected Actual Emissions

Unit Name	Emission Source	Control	Emission Point	Max Operation Schedule (hrs/yr)	VOC Emission		PM Emissions		HAPs		Nox		CO		SO2	
					(TPY)	(lbs/yr)	(TPY)	(lbs/yr)	(TPY)	(lbs/yr)	(TPY)	(lbs/yr)	(TPY)	(lbs/yr)	(TPY)	(lbs/yr)
Paint Booth	1S	1C	1E	2080	0.000	0.00	0.420	0.40	0.0011	0.0011	0.000	0.00	-	-	-	-
Parts Washer	2S, 3S, & 4S	NA	2E, 3E, 4E	8760	0.193	0.40	-	-	-	-	-	-	-	-	-	-
Paint Gun Cleaner	5S	NA	1E	2080	0.021	0.09	-	-	-	-	-	-	-	-	-	-
Totals	-	-	-	-	0.213	0.49	0.42	0.40	0.0011	0.0011	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

1. General hours of operation are 16.5 hours per day, 5 days per week and 52 weeks per year (i.e., 4250 hours per year.)
2. Emissions are calculated on maximum paint hours (3650) as described in Appendix C Section 1.5. Expected paint hours will not exceed 2080.
3. lbs/hr - pounds per hour. An hourly paint use of one gallon/hour was used to calculate hourly emission rates based on rates of similar guns in similar facilities.
4. A yearly paint usage of 3650 gallons was used for calculating annual emissions based on one gal/hr paint use and max hours of 3650.
5. A yearly parts washer solvent use of 60 gal/yr per washer was used to calculate the annual emissions.
6. A yearly paint gun washer solvent use of 30 gal/yr was used to calculate the annual emissions.
7. HAP hourly and annual emissions were based on using the coating with the highest HAP content of 0.0 lbs/gal.
8. VOC hourly and annual emissions were based on using the coating with the highest VOC content of 0.0 lbs/gal.
9. PM₁₀ hourly and annual emissions were based on the coating with the highest solids content of 5.77 lbs/gal.

Table 2
 SPM Flow Control, Inc
 52 Norwinds Dr
 Buckhannon, West Virginia 26201
 Coating and Drying Emissions

Coating	Product	Weight	8.8L	0.00	5.77	1	0.00	0.00	0.74	0.40	0.0019	0.0011	0.00	0.00								
Weir Schlumberger Blue - Pinnacle PCG11093	Acrylonitrile Polymer	63	-	-	P	-	-	-	-	-	-	-	-	-								
	Water	34.5	-	V	-	-	-	-	-	-	-	-	-	-								
	Ammonium Hydroxide	0.7	-	-	P	-	-	-	-	-	-	-	-	-								
	Sodium Nitrile	1.8	-	-	P	-	-	-	-	-	-	-	-	-								
Weir SPM Blue - Pinnacle PCG621095	Acrylonitrile Polymer	63	8.81	0.00	5.77	1	0.00	0.00	0.74	0.40	0.0019	0.0011	0.00	0.00								
	Water	34.5	-	V	-	-	-	-	-	-	-	-	-	-								
	Ammonium Hydroxide	0.7	-	-	P	-	-	-	-	-	-	-	-	-								
	Sodium Nitrile	1.8	-	-	P	-	-	-	-	-	-	-	-	-								
Weir SPM Aluminum (Silver) - Pinnacle PCG	Acrylonitrile Polymer	63	8.65	0.00	5.19	1	0.00	0.00	0.66	0.36	0.0017	0.0009	0.00	0.00								
	Water	34.5	-	V	-	-	-	-	-	-	-	-	-	-								
	Aluminum Flake	0.7	-	-	P	-	-	-	-	-	-	-	-	-								
	Sodium Nitrile	1.8	-	-	P	-	-	-	-	-	-	-	-	-								
Weir SPM Machine Red - Pinnacle PCG	Acrylonitrile Polymer	63	8.65	0.00	5.19	1	0.00	0.00	0.66	0.36	0.0017	0.0009	0.00	0.00								
	Water	34.5	-	V	-	-	-	-	-	-	-	-	-	-								
	Ammonium Hydroxide	0.7	-	-	P	-	-	-	-	-	-	-	-	-								
	Zinc Oxide	1.8	-	-	P	-	-	-	-	-	-	-	-	-								
Weir SPM Baker Hughes Silver - Pinnacle PCG	Acrylonitrile Polymer	63	8.65	0.00	5.19	1	0.00	0.00	0.66	0.36	0.0017	0.0009	0.00	0.00								
	Water	34.5	-	V	-	-	-	-	-	-	-	-	-	-								
	Aluminum Flake	0.7	-	-	P	-	-	-	-	-	-	-	-	-								
	Sodium Nitrile	1.8	-	-	P	-	-	-	-	-	-	-	-	-								
Highest Pollutant Emission																						
														0.00	0.00	0.00	0.74	0.40	0.0019	0.0011	0.00	0.00

Table 2
 SPM Flow Control, Inc
 52 Norwinds Dr
 Buckhannon, West Virginia 26201
 Coating and Drying Emissions

Notes:

1. Percent content is considered as the maximum value of the ranges provided in the MSDS.
2. "HAP" and "hr" stand for hazardous air pollutant.
3. Product Density and VOC content are obtained from MSDS.
4. Solids content is determined from manufacturer provided values
5. Solvent/paint usage is based on 1 gal/hr flow rate through the gun and 3650 hours maximum per year painting.
6. The VOC emissions in the booths include the coating and drying.
7. The PM emissions are calculated based on a transfer efficiency (TE) of 65%, fall off factor (FF) of 80% and filter efficiency (FE) of 99.74%.

Sample VOC Calculations (Weir SPM Cal. Frac. Green - PCG21099)

Annual VOC Emissions (Tons/Year)	=	(VOC content(lbs/gal) * max coating used/year (gal/yr))/2000 lbs/ton
=	=	(0.00 lbs/gal * 3650 gal/yr)/2000
=	=	0.00 ton/yr
Hourly VOC Emissions (lbs/hr)	=	(VOC content(lbs/gal) * max coating used/hr (gal/hr))
=	=	(0.00 lbs/gal * 1 gal/hr)
=	=	0.00 lbs/hr
Annual Component HAP Emissions (Tons/Year)	=	(Component content % * Product density (lbs/gal) * max coating used/year (gal/yr))/2000
=	=	((0.00% * 8.65 lbs/gal) * 3650 gal/yr)/2000
=	=	0.00 ton/yr
Hourly Component HAP Emissions (lbs/hr)	=	(Component content % * Product density (lbs/gal) * max coating used/hour (gal/hr))
=	=	((0.00% * 8.65 lbs/gal) * 1 gal/hr)
=	=	0.00 lbs/hr

Sample Controlled PM₁₀ Calculations (Weir SPM Cal. Frac. Green - PCG21099)

Annual PM ₁₀ Emissions (tons/year)	=	(((Solids Content (lbs/gal) * max coating use/yr * (1-TE)) * (1-FF)) * (1-FE))/2000
=	=	(((5.77 lbs/gal * 3650 gal/yr) * (1-.65)) * (1-.8)) * (1-.9974))/2000
=	=	0.0019 tons/yr
Hourly PM ₁₀ Emissions (tons/year)	=	(((Solids Content (lbs/gal) * max coating use/hr * (1-TE)) * (1-FF)) * (1-FE))
=	=	(((5.77 lbs/gal * 1 gal/hr) * (1-.65)) * (1-.8)) * (1-.9974))
=	=	0.0011 lbs/hr

Transfer Efficiency (TE)	65.00%
Fall-out Factor (FF)	80.00%
Filter Efficiency (FE)	99.74%

Table 3
 SPM Flow Control, Inc
 52 Norwins Dr
 Buckhannon, West Virginia 26201
 Fugitive Emissions

EPN	Item	Total Annual VOC Emission (lbs/hr)	Total Annual VOC Emissions (tons/year)	Annual Throughput (gals/year)	Throughput (gal/day)	Throughput gal/hr
2E, 3E, & 4E	Parts Washer (3 units)	0.4013	0.1926	60	1.5	0.0625
1E	Clean-up Solvents - Plant gun cleaner	0.0869	0.0209	30	1.5	0.0625
	Total	0.4881	0.2135			

IT-48WC washer contains 42 gallons of solvent
 IT-200 gun cleaner contains 12 gallons of solvent

Notes

Operation hours	
1 Year	52 Weeks
1 Week	7 Days
1 Day	24 Hours
Skysol Solvent (Parts Washer)	
Skysol Solvent Purchased	80 gallons
Waste Skysol Solvent	20 gallons
Skysol Used (Evaporated)	60 gallons
EP-921 (Gun Clean-up Solvent)	
EP-921 Solvent Purchased	50 gallons
Waste EP-921 Solvent	20 gallons
EP-921 Used (Evaporated)	30 gallons

Coating Specifications										
Solvent Name/Content	CAS Number	Max Content %	HAP	Product Density (lbs/gal)	VOC Content (lbs/gal)	Solids Content (lbs/gal)	Max Hourly Solvent Used (gals/hr)	Max Annual Solvent Used (gals/yr)	PTE VOC Emissions	PTE PM Emissions
Skysol Solvent (Parts Washer)										
C12-13 Paraffinic Hydrocarbons	64742-48-9	99.5	-	6.42	6.42	0.00	0.0625	60	0.1926	0.00
d-Limonene	5989-27-5	0.3	-	-	V	-	-	-	0.1916	-
EP-921 (Gun Clean-up Solvent)										
Tripropylene glycol methylene ether	25498491	100	-	8.17	1.39	0.00	0.0625	30	0.0209	0.00
Propylene Carbonate	108-32-7	100	-	-	V	-	-	-	0.1226	-
d-Limonene	5989-27-5	0.3	-	-	V	-	-	-	0.1226	-
									0.0004	0.0003
									0.4013	0.00
									0.3992	-
									0.0012	-
									0.0869	0.00
									0.0869	-
									0.1226	-
									0.0004	0.0003

Notes:

- Percent content is considered as the maximum value of the range provided in the MSDS
- "HAP" stands for hazardous air pollutant
- Product density and volatile organic compound (VOC) (less water and federally exempt solvents) content are obtained from the MSDS
- No Solids content expected
- The material usage rate in gallons/hr and gallons/yr is estimated.
- The VOC emissions are calculated based on an assumed usage rate.
- The particulate matter (PM) emission are calculated based on an assumed usage rate.

Attachment F

Permit Determination Form



WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 Phone: (304) 926-0475
 www.dep.wv.gov/daq

**PERMIT DETERMINATION FORM
(PDF)**

FOR AGENCY USE ONLY: PLANT I.D. # _____
 PDF # _____ PERMIT WRITER: _____

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE):

S.P.M. Flow Control, Inc

2. NAME OF FACILITY (IF DIFFERENT FROM ABOVE):

S.P.M. Flow Control, Inc. - Buckhannon

3. NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE:

811310

4A. MAILING ADDRESS:

52 Norwins Dr
 Buckhannon, WV 25201

4B. PHYSICAL ADDRESS: :

52 Norwins Dr
 Buckhannon, WV 25201

5A. DIRECTIONS TO FACILITY (PLEASE PROVIDE MAP AS ATTACHMENT A):

From Buckhannon, WV head north on WV-20 for .06 miles, merge onto US-119 S/US-33 W and head west for about 3.2 miles, then turn left onto Finks Run Road and travel .2 miles to the destination.

5B. NEAREST ROAD:

US-119 S

5C. NEAREST CITY OR TOWN:

Buckhannon

5D. COUNTY:

Upshur

5E. UTM NORTHING (KM):

4317.57546 m

5F. UTM EASTING (KM):

561.68433 m

5G. UTM ZONE:

17 S

6A. INDIVIDUAL TO CONTACT IF MORE INFORMATION IS REQUIRED:

Mike Dickerson

6B. TITLE:

Env & Sustainability Eng

6C. TELEPHONE:

817-248-2611

6D. FAX:

6E. E-MAIL:

Mike.dickerson@weirspm.com

7A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY ONLY):

NA _____

7B. PLEASE LIST ALL CURRENT 45CSR13, 45CSR14, 45CSR19 AND/OR TITLE V (45CSR30) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR AN EXISTING FACILITY ONLY):

NA

7C. IS THIS PDF BEING SUBMITTED AS THE RESULT OF AN ENFORCEMENT ACTION? IF YES, PLEASE LIST: No

8A. TYPE OF EMISSION SOURCE (CHECK ONE):

NEW SOURCE ADMINISTRATIVE UPDATE

MODIFICATION OTHER (PLEASE EXPLAIN IN 11B)

8B. IF ADMINISTRATIVE UPDATE, DOES DAQ HAVE THE APPLICANT'S CONSENT TO UPDATE THE EXISTING PERMIT WITH THE INFORMATION CONTAINED HEREIN?

NA YES NO

9. IS DEMOLITION OR PHYSICAL RENOVATION AT AN EXISTING FACILITY INVOLVED? YES NO

10A. DATE OF ANTICIPATED INSTALLATION OR CHANGE:

07/02/2014

10B. DATE OF ANTICIPATED START-UP:

07/02/2014

11A. PLEASE PROVIDE A DETAILED PROCESS FLOW DIAGRAM SHOWING EACH PROPOSED OR MODIFIED PROCESS EMISSION POINT AS ATTACHMENT B.

11B. PLEASE PROVIDE A DETAILED PROCESS DESCRIPTION AS ATTACHMENT C.

12. PLEASE PROVIDE MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS PROCESSED, USED OR PRODUCED AS ATTACHMENT D. FOR CHEMICAL PROCESSES, PLEASE PROVIDE A MSDS FOR EACH COMPOUND EMITTED TO AIR.

13A. REGULATED AIR POLLUTANT EMISSIONS:

⇒ FOR A NEW FACILITY, PLEASE PROVIDE PLANT WIDE EMISSIONS BASED ON THE POTENTIAL TO EMIT (PTE) FOR THE FOLLOWING AIR POLLUTANTS INCLUDING ALL PROCESSES.

⇒ FOR AN EXISTING FACILITY, PLEASE PROVIDE THE PROPOSED CHANGE IN EMISSIONS BASED ON THE PTE OF ALL PROCESS CHANGES FOR THE FOLLOWING AIR POLLUTANTS.

PTE FOR A GIVEN POLLUTANT IS TYPICALLY BEFORE AIR POLLUTION CONTROL DEVICES AND IS COLLECTED BASED ON THE MAXIMUM DESIGN CAPACITY OF PROCESS EQUIPMENT.

POLLUTANT	HOURLY PTE (LB/HR)	YEARLY PTE (TON/YR) (HOURLY PTE MULTIPLIED BY 8760 HR/YR) DIVIDED BY 2000 LB/TON
PM	.0011	.0019
PM ₁₀	.0011	.0019
VOCs	.49	.213
CO	0	0
NO _x	0	0
SO ₂	0	0
Pb	0	0
HAPs (AGGREGATE AMOUNT)	0	0
TAPs (INDIVIDUALLY)*	0	0
OTHER (INDIVIDUALLY)*	0	0

* ATTACH ADDITIONAL PAGES AS NEEDED

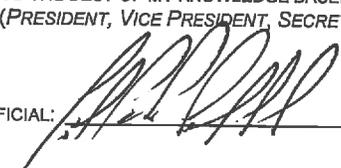
13B. PLEASE PROVIDE ALL SUPPORTING CALCULATIONS AS ATTACHMENT E.

CALCULATE AN HOURLY AND YEARLY PTE OF EACH PROCESS EMISSION POINT (SHOWN IN YOUR DETAILED PROCESS FLOW DIAGRAM) FOR ALL AIR POLLUTANTS LISTED ABOVE INCLUDING INDIVIDUAL HAP'S (LISTED IN SECTION 112[b] OF THE 1990 CAAA), TAP'S (LISTED IN 45CSR27), AND OTHER AIR POLLUTANTS (E.G. POLLUTANTS LISTED IN TABLE 45-13A OF 45CSR13, MINERAL ACIDS PER 45CSR7, ETC.).

14. CERTIFICATION OF DATA

I, BILL MARSHALL (TYPE NAME) ATTEST THAT ALL THE REPRESENTATIONS CONTAINED IN THIS APPLICATION, OR APPENDED HERETO, ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE BASED ON INFORMATION AND BELIEF AFTER REASONABLE INQUIRY, AND THAT I AM A RESPONSIBLE OFFICIAL** (PRESIDENT, VICE PRESIDENT, SECRETARY OR TREASURER, GENERAL PARTNER OR SOLE PROPRIETOR) OF THE APPLICANT.

SIGNATURE OF RESPONSIBLE OFFICIAL: _____



TITLE: VP AND GM US SERVICE CENTERS

DATE: 01 / 19 / 2016

**THE DEFINITION OF THE PHRASE 'RESPONSIBLE OFFICIAL' CAN BE FOUND AT 45CSR13, SECTION 2.23.

NOTE: PLEASE CHECK ENCLOSED ATTACHMENTS:

- ATTACHMENT A ATTACHMENT B ATTACHMENT C ATTACHMENT D ATTACHMENT E

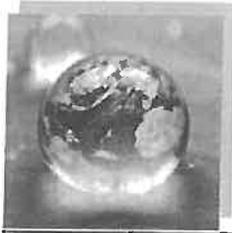
RECORDS ON ALL CHANGES ARE REQUIRED TO BE KEPT AND MAINTAINED ON-SITE FOR TWO (2) YEARS.

THE PERMIT DETERMINATION FORM WITH THE INSTRUCTIONS CAN BE FOUND ON DAQ'S PERMITTING SECTION WEB SITE:

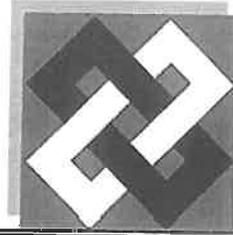
www.dep.wv.gov/daq

Attachment G

Equipment Information



INLAND TECHNOLOGY INCORPORATED
TECHNICAL DATA SHEET



IT-48WC™
PARTSWASHER/WEAPONS CLEANING SYSTEM

NSN: 4933-01-397-2539

GSA ADVANTAGE
CONTRACT NUMBER: GS-07F0156N
KIT481CS45G

The Inland Technology IT-48WC™ Partswasher/Weapons Cleaning System is designed for high-volume usage. It has a dual-system design, which allows a number of individuals to clean weapons or parts simultaneously.

The IT-48WC™ is equipped with Inland Technology's EDGE TEK™ Filtration System, a unique element which filters down to .1 micron nominal. When properly managed, this system, used with Inland's BREAKTHROUGH® solvent, generally extends solvent life for several years. Documented waste reduction in DoD averages 99% per installation for this waste stream.

The IT-48WC™ has been designed as a remote reservoir partswasher. It meets or exceeds most air quality requirement for remote reservoir solvent cleaning.

The KIT481CS45G provides the IT-48WC™ with both 45 gallons of BREAKTHROUGH® along with a case of EDGE TEK™ and Resin Filters (12x1 filters) at a discounted price through GSA Advantage.



Specifications:

Overall Dimensions:	53" L x 33" W x 69" H	Flex Nozzle:	18" Long
Inside Tub Dimensions:	48" L x 28" W x 10" H	Dual Flow-thru Brushes:	48" Long
Pump System:	500 GPH Pump	Tub Thickness:	13 Gauge Steel
Drain Basket:	3 1/4" Diameter	Solvent Capacity:	42 Gallons
Parts & Drain Baskets:	Stainless Steel	2 Parts Baskets:	3 1/4" Diameter
Remote Reservoir Dimensions:	48" x 28" W x 8" H		

Headquarters: Inland Technology Incorporated - 401 East 27th Street - Tacoma, Washington 98421
Phones: Tacoma (253) 383-1177 • (800) 552-3100 • Fax (253) 593-8749
Email: inland@inlandtech.com • www.inlandtech.com

06-10-13

Inland Technology Incorporated

Pollution Prevention By Design

IT-200™ PAINT GUN CLEANER / RECLAMATION SYSTEM

The **IT-200™** is designed to use and reclaim Inland Technology's environmentally responsible cleaning solvents **EP-921™**, **EP-1088™**, and **DRY SOL™**. These solvents are high flash point non-HAP, low VOC replacements for MEK and Lacquer thinner.

The **IT-200™** automatically cleans cup guns and is complete with a flow-thru brush for hand detailing. The **IT-200™** also has integral hose cleaning attachments for cleaning small pots and lines.

The **IT-200™** makes use of the on board **EDGE TEK™* Micro Filtration** that filters down to .1 micron nominal. This system allows for extended reuse of the cleaning solution.

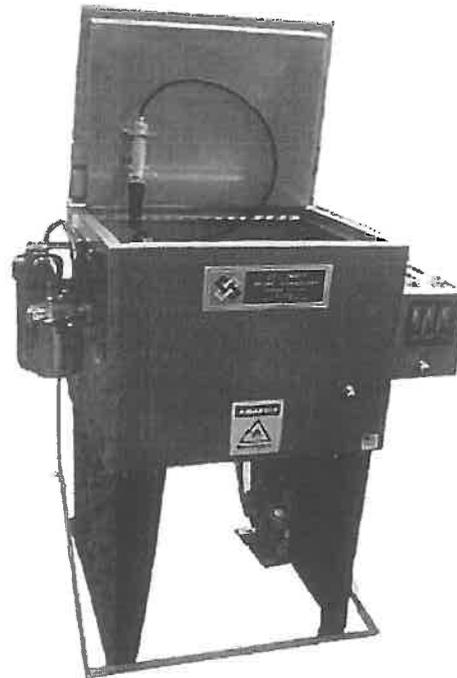
FEATURES:

- Flow-thru hose and brush
- Automatic Lid Closure when not in use
- Hose cleaning cycle
- Automatic cleaning cycle
- Hand cleaning cycle
- .1 Micron Nominal Filtration ensures extended use of cleaning solution lowers operating costs, and reduces waste

CONSTRUCTION: Stainless Steel

OPERATION: Air Operated Double Diaphragm Pump

OVERALL DIMENSIONS: 38" L X 22" W X 42" H



401 East 27th Street, Tacoma, WA 98421
(253) 383-1177 • (800) 552-3100
inland@inlandtech.com

©2010

* EDGE TEK™ Filtration Patent Pending
P070710

FIBERBOND

The Best Filters Begin
With The Best Media

E. P. Green Media

E. P. Green Dual-Density Polyester Collection Media

E. P. Green is designed for general purpose coating applications. Its white layer of media provides superior holding capacity, while the dense green layer traps even the finest particles. Unsurpassed strength and durability - will not collapse or tear when fully-loaded.

99.74% Removal Efficiency

E. P. Green Collection Media Bulk Rolls & Pads

Performance & Environmental Protection

E. P. Green's dual-density design makes it the ideal collection media choice for general purpose coating applications. E. P. Green is halogen-free.

E. P. Green Bulk Rolls

Easily cut to any length for use as collection blankets. Standard rolls are available in 20", 25", 45", 50", 60", 72" and 84" widths by 90' length. Standard size rolls can also be *perfed-to-length* (minimum perf of 20").

Cut Pads

Available in 20" x 20", 20" x 25" and 24" x 24" (30 pads/carton).

Initial Resistance

0.04" at 150 fpm



E. P. Green Bulk Rolls



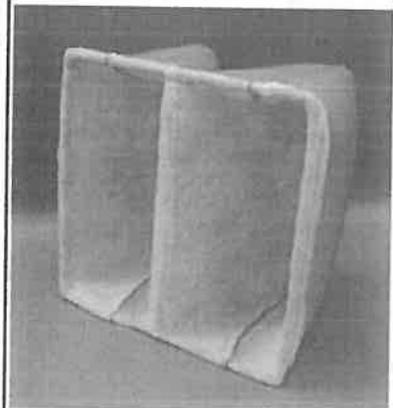
E. P. Green Cut Pads

Two Unique
Layers



E. P. Green
Dual-Density Design

Two-Pocket E. P. Green Bag



Holds Four-Times More Overspray Than A Single Pad

E. P. Green Bags offer increased paint holding and extended service life. Bags can be used as a primary filter, or as part of a 2-stage or 3-stage system. The standard, self-sealing model has a 9-gauge support, assuring a tight, leak-proof fit into booth framework. Easy to install and remove.

FIBERBOND

110 Menke Road, Michigan City, IN 46360 • Phone (219) 879-4541 • Fax (219) 874-7502
Email: customer.service@fiberbond.net • www.fiberbond.net

Independent Paint Arrestance Test Report Based On 40 CFR Part 63 National Emission Standard

PAINT ARRESTANCE FILTER TEST REPORT
Spray Removal Efficiency & Paint Holding Capacity
BASED ON 40 CFR PART 63 NATIONAL EMISSION STANDARD

Tested for: **FiberBond**
Filter Mfr: **FiberBond**
Filter Name/Model: **E.P. Green Media**
Report / Test#: **R 100 T 206**
Report Date: **15-Nov-11**

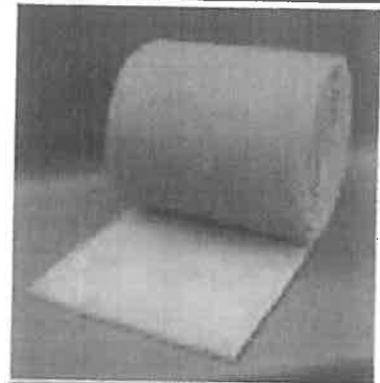
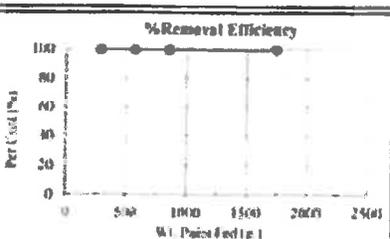
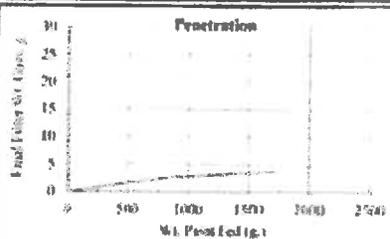
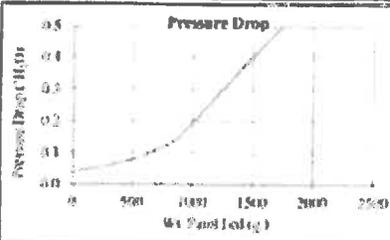
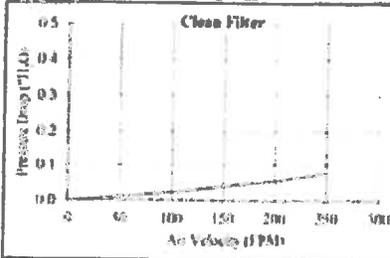
Test Information

FILTER DESCRIPTION (20" x 20" pad)
Whisper Green HighEff pad
PAINT DESCRIPTION
High Solids Bakery Test (N.W. Penetration 2400 roll)
PAINT SPRAY METHOD
Conventional Air Gun at 80 PSI
SPRAY FEED RATE
142 g/min 138 cc/min
AIR VELOCITY
150 FPM

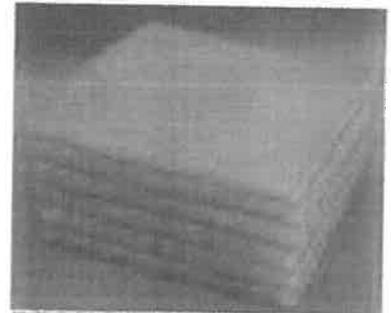
Test Results

INITIAL PRESSURE DROP of Clean Test Filter
0.04 in. water
FINAL PRESSURE DROP of Loaded Test Filter
0.99 in. water
WEIGHT GAIN on TEST FILTER & Test Frame Trough
1479 grams
PAINT HOLDING CAPACITY of TEST FILTER
1426 grams = 3.1 lbs.
PAINT RUN-OFF
66 grams
WEIGHT GAIN - FINAL FILTER
3.8 grams = PENETRATION
AVERAGE REMOVAL EFFICIENCY of TEST FILTER
99.74 %

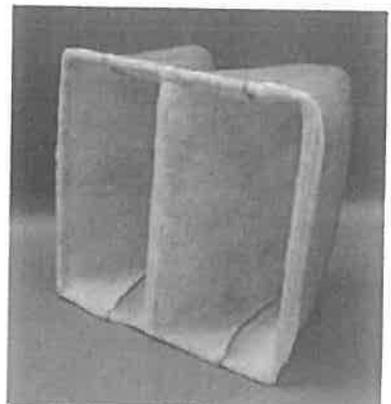
Test Engineer: Anne Lockens
Supervising Engineer: K. T. Kwock, PhD



E. P. Green Bulk Rolls



E. P. Green Cut Pads



E. P. Green Bag

**E. P. Green test report is available on the
Fiber Bond finishing products catalog CD or by
contacting the marketing department at (219) 879-4541.**