



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

August 8, 2008

Mr. Paul Visnoski  
Invacare Corporation  
Invacare Florida Operations  
2101 East Lake Mary Boulevard  
Sanford, Florida 32773

Dear Mr. Visnoski:

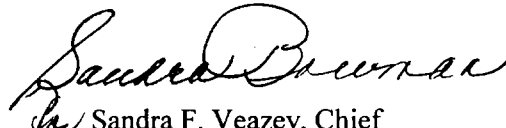
This is to acknowledge that your notification of intent to use the authority of Rule 62-210.310 to operate your facility was received on July 7, 2008. We have assigned ARMS No. 1170401-002 to this facility.

As you know, pursuant to Florida Statutes section 403.814, authority to operate under general permits commences thirty days after receipt of the registration form unless you have been notified by this office that your facility has not shown entitlement to operate pursuant to the rule provisions.

For your information, authority to operate pursuant to Rule 62-210.310 expires after 5 years. Therefore, a new registration form must be received no later than 5 years after the date your notice was received as indicated above. If your general permit rule conditions require testing, such testing must be completed within the time frame specified in the rule.

If you have any additional questions, please contact Dickson Dibble at 850/921-9586.

Sincerely,

  
Sandra F. Veazey, Chief  
Bureau of Air Monitoring  
and Mobile Sources

SFV/pg

cc: Ms. Caroline Shine, Central District

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**SURFACE COATING OPERATIONS  
AIR GENERAL PERMIT REGISTRATION FORM**

JUL 01 2008  
Central Dist.  
DEP Central Dist.

**Part II. Notification to Permitting Office**

(Detach and submit to appropriate permitting office; keep copy onsite)

**Instructions:** To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

1170401-002

**Registration Type**

Check one:

**INITIAL REGISTRATION** - Notification of intent to:

- Construct and operate a proposed new facility.
- Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

**RE-REGISTRATION** (for facilities currently using an air general permit) - Notification of intent to:

- Continue operating the facility after expiration of the current term of air general permit use.
- Continue operating the facility after a change of ownership.
- Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

**Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only**

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s):  
1170401-001-AG
- No air operation permits currently exist for this facility.

**General Facility Information**

**Facility Owner/Company Name** (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

Invacare Corporation

**Site Name** (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

Invacare Florida Operations

**Facility Location** (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 2101 East Lake Mary Blvd

City: Sanford

County: Seminole

Zip Code: 32773

**Facility Start-Up Date** (Estimated start-up date of proposed new facility.) (N/A for existing facility)

N/A

**Owner/Authorized Representative**

Name and Position Title (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)

Print Name and Title: Chris Carter - Operations Manager

Owner/Authorized Representative Mailing Address

Organization/Firm: Invacare Floride Operations

Street Address: 2101 East Lake Mary Blvd

City: Sanford

County: Seminole

Zip Code: 32773

Owner/Authorized Representative Telephone Numbers

Telephone: 407/328-1955

Fax: 407/328-1986

Cell phone (optional):

**Facility Contact (If different from Owner/Authorized Representative)**

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)

Print Name and Title: Paul Visnoski

Facility Contact Mailing Address

Organization/Firm: Invacare Florida Operations

Street Address: 2101 East Lake Mary Blvd

City: Sanford

County: Seminole

Zip Code: 32773

Facility Contact Telephone Numbers

Telephone: 407/328-5916

Fax: 407/328-1986

Cell phone (optional):

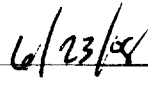
**Owner/Authorized Representative Statement**

This statement must be signed and dated by the person named above as owner or authorized representative

*I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.*

*I will promptly notify the Department of any changes to the information contained in this registration form.*

  
Signature

  
Date

**Material Usage Rates**

If this is an initial registration for a surface coating operation, provide an estimate of the average quantity of volatile organic compounds in all coatings (solvents and thinners) expected to be used on a daily basis. Please see Attachment A for usage calculations and associated MSDSs for the proposed ICCG Bed Touch-up Operation.

If this is a re-registration for an existing surface coating operation, provide the highest monthly average of the daily quantity of volatile organic compounds in all coatings (solvents and thinners) used in the last five years. Indicate the month and year during which this usage occurred.

Invacare Florida would like to register the Furniture coating operation under this new permit as well. Attachment B contains the documentation for the highest monthly average of daily quantity of VOCs since the first permit was issued.

**Description of Facility**

Below, or as an attachment to this form, provide a description of the surface coating operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

Please see Attachment C for equipment to be installed at the facility for both operations and associated process change tracking information.

## **ATTACHMENT A**

**ICCG Touch-up Operation - Emission Calculations and Associated MSDSs**

**INVACARE FLORIDA OPERATIONS  
2101 E. LAKE MARY BLVD. SANFORD, FLORIDA**

**OPERATING PERMIT - ICCG BED TOUCH-UP EMISSIONS CALCULATIONS**

Approximately 700 gallons per year of Sherwin Williams Kem Aqua Gloss Enamel, Invacare Tan wet paint will be used

- Amount is estimated based on the number of beds produced at the facility and process defined in Attachment A
- Approximately 2 gallons per day of Sherwin Williams Kem Aqua Gloss Enamel will be used per day.
- The touch-up operation will operate for one shift, 5 days/week, 8hrs/day for 260 days/year

**Product Information**

**Kem Aqua Gloss Enamel - Invacare Tan VOC emissions**

Product weight - 9.08 lbs/gal  
Product VOC weight - 1.86 lbs/gal

**Kem Aqua Gloss**

$$700 \text{ gal} \times 1.86 \text{ lbs/VOC} = 1,302 \text{ lbs of VOC per year}$$

3.6 lbs of VOC per day

**Note:** Facility only operates one 8-hr shift 5 days per week.

MATERIAL SAFETY DATA SHEET

F77KXH8828-2322  
00 01

*61.48 lbs per drum  
4.12*

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	DATE OF PREPARATION	HMIS CODES
F77KXH8828-2322	16-JAN-08	Health 2* Flammability 0 Reactivity 0

PRODUCT NAME  
KEM AQUA \* Gloss Enamel, INVACARE TAN

MANUFACTURER'S NAME  
THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

*Water based  
100% Touch up*

TELEPHONE NUMBERS and WEBSITES

Regulatory Information  
(216) 566-2902  
Medical Emergency  
(216) 566-2917  
Transportation Emergency  
(800) 424-9300

for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
1	34590-94-8	2-Methoxymethylethoxypropanol		
		ACGIH TLV	100 ppm (Skin)	0.4 mm
		ACGIH TLV	150 ppm (Skin) STEL	
		OSHA PEL	100 ppm (Skin)	
		OSHA PEL	150 ppm (Skin) STEL	
5	29911-28-2	1-(2-Butoxymethylethoxy)-propanol		
		ACGIH TLV	Not Available	0.06 mm
		OSHA PEL	Not Available	
1	5131-66-8	Butoxypropanol		
		ACGIH TLV	Not Available	0.6 mm
		OSHA PEL	Not Available	
8	13463-67-7	Titanium Dioxide		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

Continued on page 2



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**EFFECTS OF OVEREXPOSURE**

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

None generally recognized.

**CANCER INFORMATION**

For complete discussion of toxicology data refer to Section 11.

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**Section 4 -- FIRST AID MEASURES**

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**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

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**Section 5 -- FIRE FIGHTING MEASURES**

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**FLASH POINT**

Not Applicable

**LEL**

N.A.

**UEL**

N.A.

**FLAMMABILITY CLASSIFICATION**

Not Applicable

**EXTINGUISHING MEDIA**

Carbon Dioxide, Dry Chemical, Alcohol Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

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**Section 6 -- ACCIDENTAL RELEASE MEASURES**

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

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Continued on page 3

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 Section 7 -- HANDLING AND STORAGE
 

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## STORAGE CATEGORY

Not Applicable

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

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 Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION
 

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## PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

## VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

## RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

## PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

## EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

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 Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES
 

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PRODUCT WEIGHT	9.08 lb/gal	1088 g/l
SPECIFIC GRAVITY	1.09	
BOILING POINT	212 - 449 F	100 - 231 C
MELTING POINT	Not Available	
VOLATILE VOLUME	66 %	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	8.7	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
1.86 lb/gal	223 g/l	Less Water and Federally Exempt Solvents
0.82 lb/gal	99 g/l	Emitted VOC

Continued on page 4

## Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

## Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials, such as paint."

TOXICOLOGY DATA

CAS No.	Ingredient Name				
34590-94-8	2-Methoxymethylethoxypropanol	LC50	RAT	4HR	Not Available
		LD50	RAT		5135 mg/kg
29911-28-2	1-(2-Butoxymethylethoxy)-propanol	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
5131-66-8	Butoxypropanol	LC50	RAT	4HR	Not Available
		LD50	RAT		1900 mg/kg
13463-67-7	Titanium Dioxide	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available

## Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

## Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Continued on page 5

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Section 14 -- TRANSPORT INFORMATION

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US Ground (DOT)

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

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Section 15 -- REGULATORY INFORMATION

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SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

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Section 16 -- OTHER INFORMATION

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This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

**ATTACHMENT B**

ICCG Furniture Operation Highest Monthly Average Tracking Form

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INVACARE FLORIDA OPERATIONS  
2101 E. LAKE MARY BLVD  
ICCG FURNITURE OPERATIONS - CHEMICAL USAGE/VOC TRACKING LOG - APRIL 2008

DATE	OP STAIN SPRAYED (gal)	SPRAYED (POUNDS)	CLEAN UP MATERIAL (gal)	CLEAN UP MATERIAL (lbs)	VOC - BUTYL (POUNDS)	VOC - BUTYL (POUNDS)	VOC - BUTYL (POUNDS)	TO DATE (POUNDS)
04/01/08	0.50	3.41	0.10	0.75	3.72	0.00	3.72	0.00
04/02/08	0.50	3.41	0.10	0.75	3.72	0.00	7.43	0.00
04/03/08	1.00	6.82	0.10	0.75	6.68	0.00	14.11	0.00
04/04/08	1.00	6.82	0.10	0.75	6.68	0.00	20.80	0.00
04/05/08	0.50	3.41	0.00	0.00	2.97	0.00	23.76	0.00
04/06/08	0.50	3.41	0.00	0.00	2.97	0.00	26.73	0.00
04/07/08	1.50	10.23	0.10	0.75	9.65	0.00	36.38	0.00
04/08/08	2.50	17.05	0.10	0.75	15.58	0.00	51.96	0.00
04/09/08	2.00	13.64	0.10	0.75	12.62	0.00	64.58	0.00
04/10/08	2.00	13.64	0.10	0.75	12.62	0.00	77.19	0.00
04/11/08	1.50	10.23	0.10	0.75	9.65	0.00	86.84	0.00
04/12/08	1.00	6.82	0.00	0.00	5.93	0.00	92.78	0.00
04/13/08	1.00	6.82	0.00	0.00	5.93	0.00	98.71	0.00
04/14/08	1.00	6.82	0.10	0.75	6.68	0.00	105.39	0.00
04/15/08	1.50	10.23	0.10	0.75	9.65	0.00	115.04	0.00
04/16/08	1.00	6.82	0.10	0.75	6.68	0.00	121.72	0.00
04/17/08	1.00	6.82	0.10	0.75	6.68	0.00	128.41	0.00
04/18/08	1.00	6.82	0.10	0.75	6.68	0.00	135.09	0.00
04/19/08	1.00	6.82	0.00	0.00	5.93	0.00	141.02	0.00
04/20/08	1.00	6.82	0.00	0.00	5.93	0.00	146.95	0.00
04/21/08	1.50	10.23	0.10	0.75	9.65	0.00	156.60	0.00
04/22/08	1.00	6.82	0.10	0.75	6.68	0.00	163.29	0.00
04/23/08	1.50	10.23	0.10	0.75	9.65	0.00	172.93	0.00
04/24/08	1.00	6.82	0.10	0.75	6.68	0.00	179.62	0.00
04/25/08	2.00	13.64	0.10	0.75	12.62	0.00	192.23	0.00
04/26/08	1.00	6.82	0.00	0.00	5.93	0.00	198.17	0.00
04/27/08	0.00	0.00	0.00	0.00	0.00	0.00	198.17	0.00
04/28/08	1.50	10.23	0.10	0.75	9.65	0.00	207.82	0.00
04/29/08	2.00	13.64	0.10	0.75	12.62	0.00	220.43	0.00
04/30/08	2.50	17.05	0.10	0.75	15.58	0.00	236.01	0.00

Cell to be filled out by the operator at the end of the day entered to calculation spreadsheet daily.

- a. Assumes that Butyl Cellosolve is the clean-up material used since it has a greater specific gravity than the other clean-up materials used at the facility (HAPs Free Reducer and 140 Flash Aliphatic Naphtha)
- b. VOC - Volatile Organic Compound
- c. HAP - hazardous air pollutant

INVACARE FLORIDA OPERATIONS  
2101 E. LAKE MARY BLVD  
ICCG FURNITURE OPERATIONS - CHEMICAL USAGE/VOC TRACKING LOG - APRIL 2008

DATE	OF SEVERAL SPRAYED (gal)	SPRAYED (POUNDS)	OF SEVERAL MATERIAL (gal)	OF SEVERAL MATERIAL (lbs)	VOC - VOLUME (POUNDS)	VOC - WEIGHT (POUNDS)	VOC - WEIGHT (POUNDS)	VOC - WEIGHT (POUNDS)
04/01/08	2.00	14.78	0.10	0.75	4.73	0.00	4.73	0.00
04/02/08	2.00	14.78	0.10	0.75	4.73	0.00	9.46	0.00
04/03/08	3.00	22.17	0.10	0.75	6.72	0.00	16.18	0.00
04/04/08	2.00	14.78	0.10	0.75	4.73	0.00	20.91	0.00
04/05/08	4.00	29.56	0.00	0.00	7.96	0.00	28.87	0.00
04/06/08	4.00	29.56	0.00	0.00	7.96	0.00	36.83	0.00
04/07/08	4.00	29.56	0.10	0.75	8.71	0.00	45.54	0.00
04/08/08	4.00	29.56	0.10	0.75	8.71	0.00	54.24	0.00
04/09/08	1.00	7.39	0.10	0.75	2.74	0.00	56.98	0.00
04/10/08	4.00	29.56	0.10	0.75	8.71	0.00	65.69	0.00
04/11/08	3.00	22.17	0.10	0.75	6.72	0.00	72.41	0.00
04/12/08	2.00	14.78	0.00	0.00	3.98	0.00	76.39	0.00
04/13/08	3.00	22.17	0.00	0.00	5.97	0.00	82.36	0.00
04/14/08	4.00	29.56	0.10	0.75	8.71	0.00	91.07	0.00
04/15/08	3.00	22.17	0.10	0.75	6.72	0.00	97.79	0.00
04/16/08	4.00	29.56	0.10	0.75	8.71	0.00	106.50	0.00
04/17/08	5.00	36.95	0.10	0.75	10.70	0.00	117.20	0.00
04/18/08	3.00	22.17	0.10	0.75	6.72	0.00	123.92	0.00
04/19/08	4.00	29.56	0.00	0.00	7.96	0.00	131.88	0.00
04/20/08	2.00	14.78	0.00	0.00	3.98	0.00	135.86	0.00
04/21/08	4.00	29.56	0.10	0.75	8.71	0.00	144.57	0.00
04/22/08	3.00	22.17	0.10	0.75	6.72	0.00	151.28	0.00
04/23/08	2.00	14.78	0.10	0.75	4.73	0.00	156.01	0.00
04/24/08	3.00	22.17	0.10	0.75	6.72	0.00	162.73	0.00
04/25/08	2.00	14.78	0.10	0.75	4.73	0.00	167.46	0.00
04/26/08	5.00	36.95	0.00	0.00	9.95	0.00	177.41	0.00
04/27/08	0.00	0.00	0.00	0.00	0.00	0.00	177.41	0.00
04/28/08	5.00	36.95	0.10	0.75	10.70	0.00	188.11	0.00
04/29/08	4.00	29.56	0.10	0.75	8.71	0.00	196.82	0.00
04/30/08	4.00	29.56	0.10	0.75	8.71	0.00	205.53	0.00

Cell to be filled out by the operator at the end of the day entered to calculation spreadsheet daily.

- a. Assumes that Butyl Cellosolve is the clean-up material used since it has a greater specific gravity than the other clean-up materials used at the facility (HAPs Free Reducer and 140 Flash Aliphatic Naphtha)
- b. VOC - Volatile Organic Compound
- c. HAP - hazardous air pollutant

INVACARE FLORIDA OPERATIONS  
2101 E. LAKE MARY BLVD  
ICCG FURNITURE OPERATIONS - CHEMICAL USAGE/VOC TRACKING LOG - APRIL 2008

DATE	OF COATING SPRAYED (gal)	SPRAYED (POUNDS)	CLEAN-UP MATERIAL <sup>a</sup> (gal)	CLEAN-UP MATERIAL (lbs)	VOCs EMITTED (POUNDS)	HAPs EMITTED (POUNDS)	TODATE (POUNDS)	TODATE (POUNDS)
04/01/08	2.00	14.78	0.10	0.75	11.37	0.00	11.37	0.00
04/02/08	5.00	36.95	0.10	0.75	27.30	0.00	38.67	0.00
04/03/08	3.00	22.17	0.10	0.75	16.68	0.00	55.35	0.00
04/04/08	2.00	14.78	0.10	0.75	11.37	0.00	66.72	0.00
04/05/08	5.00	36.95	0.00	0.00	26.55	0.00	93.27	0.00
04/06/08	2.50	18.48	0.00	0.00	13.28	0.00	106.54	0.00
04/07/08	1.00	7.39	0.10	0.75	6.06	0.00	112.60	0.00
04/08/08	4.00	29.56	0.10	0.75	21.99	0.00	134.59	0.00
04/09/08	3.00	22.17	0.10	0.75	16.68	0.00	151.27	0.00
04/10/08	3.00	22.17	0.10	0.75	16.68	0.00	167.95	0.00
04/11/08	3.00	22.17	0.10	0.75	16.68	0.00	184.63	0.00
04/12/08	2.00	14.78	0.00	0.00	10.62	0.00	195.25	0.00
04/13/08	4.00	29.56	0.00	0.00	21.24	0.00	216.49	0.00
04/14/08	3.00	22.17	0.10	0.75	16.68	0.00	233.17	0.00
04/15/08	3.00	22.17	0.10	0.75	16.68	0.00	249.84	0.00
04/16/08	4.00	29.56	0.10	0.75	21.99	0.00	271.83	0.00
04/17/08	5.00	36.95	0.10	0.75	27.30	0.00	299.13	0.00
04/18/08	3.00	22.17	0.10	0.75	16.68	0.00	315.81	0.00
04/19/08	3.00	22.17	0.00	0.00	15.93	0.00	331.74	0.00
04/20/08	2.00	14.78	0.00	0.00	10.62	0.00	342.36	0.00
04/21/08	4.00	29.56	0.10	0.75	21.99	0.00	364.35	0.00
04/22/08	3.00	22.17	0.10	0.75	16.68	0.00	381.03	0.00
04/23/08	2.00	14.78	0.10	0.75	11.37	0.00	392.40	0.00
04/24/08	2.00	14.78	0.10	0.75	11.37	0.00	403.77	0.00
04/25/08	2.00	14.78	0.10	0.75	11.37	0.00	415.14	0.00
04/26/08	5.00	36.95	0.00	0.00	26.55	0.00	441.69	0.00
04/27/08	0.00	0.00	0.00	0.00	0.00	0.00	441.69	0.00
04/28/08	5.00	36.95	0.10	0.75	27.30	0.00	468.99	0.00
04/29/08	3.00	22.17	0.10	0.75	16.68	0.00	485.66	0.00
04/30/08	4.00	29.56	0.10	0.75	21.99	0.00	507.65	0.00

Cell to be filled out by the operator at the end of the day entered to calculation spreadsheet daily.

- a. Assumes that Butyl Cellosolve is the clean-up material used since it has a greater specific gravity than the other clean-up materials used at the facility (HAPs Free Reducer and 140 Flash Aliphatic Naphtha)
- b. VOC - Volatile Organic Compound
- c. HAP - hazardous air pollutant



INVACARE FLORIDA OPERATIONS  
 2101 E. LAKE MARY BLVD  
 ICCG FURNITURE OPERATIONS - CHEMICAL USAGE/VOC TRACKING LOG - APRIL 2008

04/01/08	19.81	0.00	0.01	0.00
04/02/08	35.74	0.00	0.03	0.00
04/03/08	30.08	0.00	0.04	0.00
04/04/08	22.78	0.00	0.05	0.00
04/05/08	37.48	0.00	0.07	0.00
04/06/08	24.20	0.00	0.09	0.00
04/07/08	24.42	0.00	0.10	0.00
04/08/08	46.28	0.00	0.12	0.00
04/09/08	32.03	0.00	0.14	0.00
04/10/08	38.00	0.00	0.16	0.00
04/11/08	33.05	0.00	0.17	0.00
04/12/08	20.53	0.00	0.18	0.00
04/13/08	33.14	0.00	0.20	0.00
04/14/08	32.07	0.00	0.21	0.00
04/15/08	33.05	0.00	0.23	0.00
04/16/08	37.38	0.00	0.25	0.00
04/17/08	44.68	0.00	0.27	0.00
04/18/08	30.08	0.00	0.29	0.00
04/19/08	29.82	0.00	0.30	0.00
04/20/08	20.53	0.00	0.31	0.00
04/21/08	40.35	0.00	0.33	0.00
04/22/08	30.08	0.00	0.35	0.00
04/23/08	25.75	0.00	0.36	0.00
04/24/08	24.77	0.00	0.37	0.00
04/25/08	28.71	0.00	0.39	0.00
04/26/08	42.43	0.00	0.41	0.00
04/27/08	0.00	0.00	0.41	0.00
04/28/08	47.65	0.00	0.43	0.00
04/29/08	38.00	0.00	0.45	0.00
04/30/08	46.28	0.00	0.47	0.00

**ATTACHMENT C**

**Process Information and Process Change Form**

## PROCESS CHANGE/EVALUATION FORM

Location: \_\_\_\_\_ Department Number: \_\_\_\_\_  
Department: \_\_\_\_\_ Supervisor Name: \_\_\_\_\_  
Dept. Contact: \_\_\_\_\_ Dept Phone Number: \_\_\_\_\_  
Technican Review (Sign/Date): \_\_\_\_\_  
Approve / Reject Change (Circle one)

Process Name: \_\_\_\_\_

Describe Current Operating Procedure: \_\_\_\_\_

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List Current Chemical Constituents by % of Volume, if applicable to change.

Constituent (MSDS # and Product Name)	% by Volume

Describe Proposed Operating Procedure: \_\_\_\_\_

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List Proposed Chemical Constituents by % of Volume, if applicable to change.

Constituent (MSDS # and Product Name)	% by Volume

### **ICCG Power Coat Paint Process and Touch up Procedure.**

- ICCG beds are completely assembled, wired in a closed or flat position and hung onto a continuous overhead paint conveyor.
- The paint conveyor travels through a high pressure wash tunnel to degrease and clean the bed.
- The paint conveyor travels through a section of the cure oven designed for drying the beds once the degreasing and cleaning process is complete.
- Beds are powder coated in a semi-automatic paint booth utilizing twelve automatic paint guns. One manual paint gun is used at the end of the booth to assure maximum coverage is obtained.
- Beds travel through the paint oven, curing the powder coat paint at a temperature of 430 degrees Fahrenheit, thus completing the powder coat curing process.
- Painted beds continue to travel by conveyor to the ICCG bed final assembly area.
- Painted beds are lifted off the paint conveyor and staged on a carousel, waiting for final assembly.
- Beds are lifted onto the assemble line with the support of a manipulator arm.
- During the final assembly process, the head, foot, and thigh section of the bed is elevated and motors are attached. Once motors are attached and beds are tested in an upright position, exposed areas of the bed that did not receive adequate powder coat coverage are visible. The areas of the bed lacking adequate paint coverage is the result of pivot or hinged sections of the bed being initially painted in a closed position.
- A Sherwin Williams low VOC based paint is sprayed onto the unpainted areas of the beds directly before the beds are packaged for shipment. This paint is applied to the beds utilizing a Binks pressurized paint gun system.

## Process Parameters: ICCG Furniture Operation

- Parts are loaded at load station
  - Timer within cart system will release the cart after a predetermined time.
- Cart stops before Stain application booth
- Cart enters Stain application booth, by signal sent by sprayer, via foot switch
- After sprayer is finished, cart is sent out of booth
- Cart indexes for two indexes, index time adjustable
- Cart enters Halogen IR curing tunnel, cart moves at predetermined speed to achieve 3 minutes exposure to the Halogen IR
- Cart exits the Halogen IR and stops before the Sealer application booth
- Cart enters Sealer application booth, by signal sent by sprayer, via foot switch
- After sprayer is finished, cart is sent out of booth
- Cart indexes for four indexes, for flash-off, index time adjustable
- Cart enters Halogen IR curing tunnel, cart moves at predetermined speed to achieve 4 minutes exposure to the Halogen IR
- Cart enters Sanding area; this area has space for two carts to be stopped at the same time. There is also index space before and after the area.
- Cart Stops before Topcoat application booth
- Cart enters Topcoat application booth, by signal sent by sprayer, via foot switch
- After sprayer is finished, cart is sent out of booth
- Cart indexes for four indexes, for flash-off, index time adjustable
- Cart enters Halogen IR curing tunnel, cart moves at predetermined speed to achieve 4 minute exposure to the Halogen IR
- Cart exits the curing tunnel and proceeds to the Unload area
- When unloading is complete the cart is sent to the load station.

### Equipment Description:

#### One (1) Prime Heat "PowerCart" Conveyor system:

The PowerCart offers flexibility, performance and value unequalled by any other conveyor system. This system uses self propelled carts traveling along a W' high floor track that enables easy access into your finishing area. Each PowerCart is independent, allowing it to easily roll over and be removed off the track so you can add and remove carts from the line at your convenience. You can stop a PowerCart anytime and the second it touched anything, it immediately comes to a gentle stop. Attached to the track are Line Stops that activate a time delay switch inside the PowerCart. This adjustable time delay can be set from seconds to minutes. The Line Stops are easily attached to the track and placed anywhere you want the cart to stop. The PowerCart track is easily installed and easy to lengthen.

- 10 "PowerCarts", battery powered, explosion proof construction, equipped with:
  - 3' x 7' rotation top, 21" off the ground, working width 36"
  - Stop, safety bar
  - Motor lift handle
  - 200-pound capacity
    - Top of cart can be modified to accept racks, stands, special fixture to hold parts, etc.
    - Charge capacity of 12 miles at 18 fpm or 8 hours/day for 10 days
- 300-feet of PowerCart track
- 10 battery chargers
- 3 "On Demand" @switches

- See option for "tow cart" option

**Three (3) Thierica Equipment Manual Spray Booths:**

- All booths tube and skin construction, this allows easy moving of the booth in the future if line is expanded or process changed.
- All booths 10'(w) x 10'(d) x 8'(h)
  - Note: Topcoat booth will be constructed as a enclosed booth, this will allow factory filtered air to be introduced to "pressurize" the booth to reduce dust infiltration
- Estimated exhaust volume for each booth: 10,000 CFM
- Exhaust to be exhausted out of building
- Fan sizes to be advised after engineering drawings are completed.
- Two (2) 4-bulb fluorescent light fixtures will be mounted in the ceiling
- Back wall plenum will be engineered to except 20 x 20 replaceable filters to capture over spray

**Three (3) PrimeHeat Halogen Infrared Curing Tunnels:**

- **One (1) Stain Cure Tunnel**
  - Size of tunnel: 9'(1)x 8'6"(w) x 8'(h)
  - 24 Halogen emitters (see drawing for positions)
  - 2 circulation blower, that pull air back around the Halogen emitters and duct it to the top of the tunnel and blow it down on the parts as they pass through the tunnel
  - 1 exhaust fan, 1,510 CFM's, to be exhausted out of building
  - Control Panel:
    - NEMA 12
    - Timed motion sensor
    - 1 heat zone with a digital thermostat & IR sensor with 4:1 optics to read surface temperature of your parts
    - Allen Bradley contactors
    - IEC motor overloads
    - Power requirement: 44KW @440v3p59amps
- **Two (2) Cure Tunnels**
  - One for Sealer and one for Topcoat cure
  - Size of tunnels: 12'(1) x 8'6"(w) x 8'(h)
  - 30 Halogen emitter (see drawing for positions)
  - 4 circulation blowers, that pull air back around the Halogen emitters and duct it to the top of the tunnel and blow it down on the parts as they pass through the tunnel
  - 1exhaust fan, 1,510CFM's, to be exhausted out of building
  - Control Panel:
    - NEMA 12
    - Timed motion sensor
    - 2 heat zone with a digital thermostat & IR sensor with 4: 1 optics to read surface temperature of your parts
    - Allen Bradley contactors
    - IEC motor overloads
    - Power requirements:55KW@440v 3p 78amps
- **One (1) Thierica Flash-Off Tunnel**
  - Size of tunnel: 16'(1)x 6'(w) x 8'(h)

- 2 circulation blower, that pull air blow it down on the parts as they pass through the tunnel
- 1 exhaust blower 1,510 CFM's, to be exhausted out of the building

**Florida Department of Environmental Protection**  
**Cash Receiving Application (CRA)**  
**Cashlisting by Deposit #: thru**  
**Printed: 7/9/2008 12:28:56 PM - Page 1**

*Corrected  
Cashlisting - JP*

Cashlisting: 69526    Cashlist Area: 3755    Description: DIV OF AIR RESOURCES MGMT.  
 Deposit No: 291009    Date Deposited: 07/07/2008    Contact: E. WALKER

Object	Transmittal	Dep DDN	Receipt Number	Pre-Numbered Receipt	Name	Check Number	Payment Amount	Reference Account	Payment Number	Remittance Number	Fund	Grant
002272	49349	484323	630223		INVACARE	4746220	\$100.00	1170401-002	889381	788384	PFTF	
	49349	484329	630229		GROVE SCIENTIFIC&ENGINEERING C	19941	\$100.00	7/7/2008-SC	889396	788390	PFTF	
	49349	484330	630230		GROVE SCIENTIFIC&ENGINEERING C	19942	\$100.00		889397	788391	PFTF	
	49349	484331	630231		ANDERSON- MCQUEEN CO.	28664	\$300.00		889398	788392	PFTF	
	49349	484332	630232		TER PRINTS USA, INC	16938	\$100.00		889399	788393	PFTF	
Object Code 002272 Subtotal:							\$700.00					
002278	49349	484317	630217		SUNRISE SYSTEMS BREVARD, INC	037161	\$900.00	49554	889360	788378	APCTF	
	49349	484317	630217		SUNRISE SYSTEMS BREVARD, INC	037161	\$500.00	48755	889361	788378	APCTF	
	49349	484327	630227		BHATE ENVIRONMENTAL ASSOCIATES	5233	\$700.00	32029	889390	788388	APCTF	
	49375		630337		CROSS CONSTRUCTION SERVICES, I	7659	\$300.00	49550	889550	788541	APCTF	
	49375		630337		CROSS CONSTRUCTION SERVICES, I	7659	\$700.00	49487	889549	788541	APCTF	
	49375		630337		CROSS CONSTRUCTION SERVICES, I	7659	\$600.00	49552	889548	788541	APCTF	
	49375		630337		CROSS CONSTRUCTION SERVICES, I	7659	\$900.00	49553	889547	788541	APCTF	
	49375		630337		CROSS CONSTRUCTION SERVICES, I	7659	\$800.00	49551	889551	788541	APCTF	
Object Code 002278 Subtotal:							\$5,400.00					
Cashlisting 69526 Total:							\$6,100.00					