

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## FORM 1- NOTICE OF CONSTRUCTION TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE

**Form 1 Instructions:**

1. Please complete all the fields below. **This NOC application is considered incomplete until signed.**
2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records ([www.orcaa.org/forms](http://www.orcaa.org/forms)).
3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

<b>Business Name:</b> I-5 Design Build, Inc.	<b>For ORCAA use only</b> File No: 683 County No: 67 Source No: 29 Application No: 22NOC1561
<b>Mailing Address:</b> 8751 Commerce Pl. Dr. NE, Lacey, WA 98516	Date Received: <div style="text-align: center; color: red; font-weight: bold; font-size: 1.2em;">                     Received                      MAY 10 2022                      ORCAA                 </div>
<b>Physical Address of Project or New Source:</b> 9000 Orion Dr. NE, Lacey, WA 98516	
<b>Billing Address:</b> 8751 Commerce Pl. Dr. NE, Lacey, WA 98516	
<b>Project or Equipment to be installed/established:</b> 2 Bag House, 2 Spray Booths 1 Cyclone.	
Anticipated startup date: <u>07/01/2022</u> Is facility currently registered with ORCAA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option: <input checked="" type="checkbox"/> SEPA was satisfied by <u>Thurston County</u> (government agency) on <u>09/21/16</u> (date) - Include a copy of the SEPA determination <input type="checkbox"/> SEPA threshold determination by _____ (government agency) is pending - Include a copy of the environmental checklist <input type="checkbox"/> ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist <input type="checkbox"/> This project is exempt from SEPA per _____ (WAC citation).	
<b>Name of Owner of Business:</b> Duncan Williams	<b>Agency Use Only</b>
Title: President	
Email: <u>admin@i5design.com</u> Phone: <u>360.459.3200</u>	
<b>Authorized Representative for Application (if different than owner):</b> Daniel Scamman	
Title: Project Manager	
Email: <u>dans@i5design.com</u> Phone: <u>360.480.8390</u>	
I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.	
<b>Signature of Owner or Authorized Representative: (sign in Blue Ink)</b>	
	Date: <u>5/6/2022</u>
<b>IMPORTANT:</b> Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.	

## OLYMPIC REGION CLEAN AIR AGENCY

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### FORM 1D- Contact Information

<b>Business Name</b> I-5 Design Build, Inc.	<b>FOR ORCAA USE</b>
	<b>FILE #</b>
<b>Physical Site Address (Street address, city, state, zip)</b> 9000 Orion Dr. NE, Lacey, WA 98516	<b>CTY #</b>
	<b>SRC #</b>
	<b>Date Received</b>
<b>Previous Business Name (if applicable)</b> I-5 Signs & Awnings, I-5 Design & Manufacture	

#### Contact Information

<b>Inspection Contact</b>	
Name Daniel Scamman	Title Project Manager
Phone 360.480.8390	Email dans@i5design.com
<b>Billing Contact</b>	
Name Leanne Livingston	Title Administration
Phone 360.549.3237	Email ap@i5design.com
<b>Emission Inventory Contact</b>	
Name Jordan Williams	Title Production Manager
Phone 360.549.3224	Email jwilliams@i5design.com
<b>Complaint Contact</b>	
Name Daniel Scamman	Title Project Manager
Phone 360.480.8390	Email dans@i5design.com
<b>Permit Contact</b>	
Name Danielle Scamman	Title Administration
Phone 360.549.3230	Email djscamman@i5design.com

The **inspection contact** is the on-site person responsible for the everyday operation of the site and is available for inspections.

The **billing contact** is the person invoices are sent.

The **emission inventory contact** is the person requests for emissions information and material use information are sent.

The **complaint contact** is the person who receives and responds to complaints received on-site and who is contacted regarding complaints ORCAA receives.

The **permit contact** is the person responsible for filling out permit applications and receiving approval from ORCAA.



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[www.orcaa.org](http://www.orcaa.org)

## FORM 8

Fill out all the applicable equipment information requested below and submit the appropriate fees.

### SPRAY COATING (Autobody) SURFACE COATING (Aviation, Wood, Boat, Other)

#### Shop Information

<b>Business Name:</b> I-5 Design Build, Inc.	<b>Contact Person:</b> Daniel Scamman <b>Phone Number:</b> 360.480.8390 <b>Email:</b> dans@i5design.com
<b>Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr	<b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun

#### Process Information

<b>Flow:</b>	<input type="checkbox"/> Cross front flow <input checked="" type="checkbox"/> Full downdraft <input type="checkbox"/> Side downdraft <input type="checkbox"/> Combination <input type="checkbox"/> Cross reverse flow <input type="checkbox"/> Semi-downdraft <input type="checkbox"/> Updraft <input type="checkbox"/> Other (explain in attachment)		
<b>Exhaust:</b>	<input checked="" type="checkbox"/> Side Wall <input type="checkbox"/> Pit/Trench Design <input type="checkbox"/> Ceiling <input type="checkbox"/> Rear Wall <input type="checkbox"/> Front/Doors		
<b>Intake Type:</b>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Forced (air make-up unit)		
<b>Enclosure Type:</b>	<input checked="" type="checkbox"/> Fully enclosed <input type="checkbox"/> Compact/modular <input type="checkbox"/> Open table/bench <input type="checkbox"/> Closed top open front (CTOF) <input type="checkbox"/> Curtain/tent/drape <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Tunnel		
<b>Width (feet):</b> 17'	<b>Length (feet):</b> 48.9'	<b>Height (feet):</b> 18.1'	
<b>Manufacturer:</b>	Nova Verta		
<b>Model Number:</b>	Maxi Range		
<b>Serial Number:</b>	@ Later Date		
<b>Pressure Gauge:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Filter Plenum:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Intended Applicator Usage (see next section):</b>	<input checked="" type="checkbox"/> Applicator #1 <input type="checkbox"/> Applicator #3 <input type="checkbox"/> Applicator #5 <input type="checkbox"/> Applicator #2 <input type="checkbox"/> Applicator #4		
<b>Air Pollution Control Methods:</b>	<input type="checkbox"/> Water Wash <input checked="" type="checkbox"/> Low VOC coatings <input type="checkbox"/> Cartridge unit (Form 12) <input type="checkbox"/> Scrubber <input type="checkbox"/> Cyclone (Form 13) <input type="checkbox"/> Enclosed spray gun cleaner <input type="checkbox"/> Oxidizer (Form 35) <input type="checkbox"/> Baghouse (Form 12)		
<b>Heater/Curing Information (if applicable)</b>			
<b>Heater Placement:</b>	<input checked="" type="checkbox"/> Part of spray booth unit <input type="checkbox"/> Separate curing enclosure (Form 11)		
<b>Curing/Heating Type :</b>	<input checked="" type="checkbox"/> Hot air dryer <input type="checkbox"/> Infrared dryer <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Ultraviolet <input type="checkbox"/> Boiler		
<b>Fuel/Heat Type :</b>	<input checked="" type="checkbox"/> Natural gas <input type="checkbox"/> Electric <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Propane (LP) Gas <input type="checkbox"/> Diesel		
<b>Maximum Heating Rate (MMBtu/hr):</b>	2.4 Million BTU		
<b>Maximum Air Flow Rate (acfm):</b>	33,000CFM		

### Coating Operation Information

Type:	<input type="checkbox"/> Existing Stationary Source	<input type="checkbox"/> Temporary Source	<input type="checkbox"/> New Stationary Source
NAICS Code(s):			

### Coating Equipment Information

	Applicator #1	Applicator #2	Applicator #3	Applicator #4	Applicator #5
Coating Type**:	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input checked="" type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating
Manufacturer:					
Model:					
Quantity:					
Technology Type:	<input checked="" type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)
Automation/Control:	<input checked="" type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic
Air Supply Pressure (psi):	40				
Fluid Output Pressure (psi):	10				
Mounting:	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator

\*\*Only provide further information for applicators that are not roller/brush

### Dry Filter Information

	Pre-Filter	Exhaust Filter
Manufacturer:	Gardair	Superior Glass Fibers
Model:	NV 0123	NV0125
Media Type:	Polyester	Glass Fiber-22 grm
Overall Arrest Efficiency (%):	90.6	98
Filtered Area (squared feet):	32	405

### Heavy Metal Information

Application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd):	<input type="checkbox"/> Yes** <input type="checkbox"/> No
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\*\*Please provide SDS/ MSDS information and estimated annual usage for each product

### Other Process Information

Abrasive Blasting:	<input type="checkbox"/> Yes (Form 17) <input type="checkbox"/> No
Welding:	<input type="checkbox"/> Yes (Form 19) <input type="checkbox"/> No
Metal Cutting:	<input type="checkbox"/> Yes (Form 31) <input type="checkbox"/> No
Fluidized Bed Coating:	<input type="checkbox"/> Yes <input type="checkbox"/> No

### Cleaning/Etching/Degreasing Information

Methylene Chloride Stripping:	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Phosphate or Chromate Conversion Coating:	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Chemical/Acid Rinsing or Bathing:	<input type="checkbox"/> Yes** <input type="checkbox"/> No

\*\*Please provide SDS/ MSDS information and estimated annual usage for each product

### Exhaust/Stack/Building Information

Motor Power (hp):	4 @ 10HP	
Exhaust Air Flow Rate at 0.65" w.g. (acfm):	33,000 CFM	
Fan Diameter (feet):	4@ 24" Direct Drive Turbine Extractor	
Stack Type:	<input type="checkbox"/> Vertical (Ceiling Outlet)	<input type="checkbox"/> Horizontal (Wall Outlet)
Stack Height (feet from ground):	22'	
Stack Inside Diameter (inches):	4@ 24"	
Stack weatherproof damper or exhaust apparatus:	<input type="checkbox"/> None <input type="checkbox"/> Hexagonal <input type="checkbox"/> Stack within stack	<input checked="" type="checkbox"/> Butterfly <input type="checkbox"/> Inverted cone <input type="checkbox"/> Other (explain in attachment)
Bldg. Peak Height (feet):	32'	
Bldg. Width (feet):	220'	
Bldg. Length (feet)	300'	

### Air Quality Modeling Site Information

Distance from the centroid of the stack to the shop's property line (feet):	117-7 1/8'
Distance from the centroid of the stack to the nearest point on the property line of a permanent residence (feet):	117-7 1/8'

### Filing Fee:

See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

### Material Usage Information

Provide the following information and attach copies of Material Safety Data Sheets (MSDS) used in all coating operations, including but not limited to pre-treatment wash, chemical strippers, paint, primer, topcoat, clearcoat, gelcoat, lacquer, stain, catalyst, activator, hardener, resin, filler, sealer, adhesive, solvent and thinner/reducer and any other materials used which contain volatile organic compounds (VOC). Use additional pages if necessary. For similar materials such as multiple color variations of a stain or paint, enter as single item with a usage rate representing the total gallons of all variations used, and provide the MSDS for the constituent which is most used.

NAME OF MATERIAL (as on SDS/ MSDS):	ESTIMATED ANNUAL USAGE (in gallons):	Applicator # ( as defined in the “Coating Equipment Information” section):
POLYESTER PRIMER SURFACER 6001SP	235.2	#1
Grip-Gard Efx-LV B60SG Satin Gloss Blender	470.4	#1



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#### Shop Information

<b>Business Name:</b> I-5 Design Build, Inc.	<b>Contact Person:</b> Daniel Scamman
	<b>Phone Number:</b> 360.480.8390
	<b>Email:</b> dans@i5design.com
<b>Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr	<b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun

#### Process Information

<b>Flow:</b>	<input type="checkbox"/> Cross front flow <input type="checkbox"/> Full downdraft <input type="checkbox"/> Side downdraft <input type="checkbox"/> Combination <input checked="" type="checkbox"/> Cross reverse flow <input type="checkbox"/> Semi-downdraft <input type="checkbox"/> Updraft <input type="checkbox"/> Other (explain in attachment)		
<b>Exhaust:</b>	<input type="checkbox"/> Side Wall <input type="checkbox"/> Pit/Trench Design <input type="checkbox"/> Ceiling <input type="checkbox"/> Rear Wall <input checked="" type="checkbox"/> Front/Doors		
<b>Intake Type:</b>	<input type="checkbox"/> Natural <input type="checkbox"/> Forced (air make-up unit)		
<b>Enclosure Type:</b>	<input checked="" type="checkbox"/> Fully enclosed <input type="checkbox"/> Compact/modular <input type="checkbox"/> Open table/bench <input type="checkbox"/> Closed top open front (CTOF) <input type="checkbox"/> Curtain/tent/drape <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Tunnel		
<b>Width (feet):</b> 16'	<b>Length (feet):</b> 26'	<b>Height (feet):</b> 10'	
<b>Manufacturer:</b>	Spray Systems		
<b>Model Number:</b>	R261610		
<b>Serial Number:</b>	N/A		
<b>Pressure Gauge:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Filter Plenum:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Intended Applicator Usage (see next section):</b>	<input checked="" type="checkbox"/> Applicator #1 <input type="checkbox"/> Applicator #3 <input type="checkbox"/> Applicator #5 <input type="checkbox"/> Applicator #2 <input type="checkbox"/> Applicator #4		
<b>Air Pollution Control Methods:</b>	<input type="checkbox"/> Water Wash <input type="checkbox"/> Low VOC coatings <input type="checkbox"/> Cartridge unit (Form 12) <input type="checkbox"/> Scrubber <input type="checkbox"/> Cyclone (Form 13) <input type="checkbox"/> Enclosed spray gun cleaner <input type="checkbox"/> Oxidizer (Form 35) <input type="checkbox"/> Baghouse (Form 12)		
<b>Heater/Curing Information (if applicable)</b>			
<b>Heater Placement:</b>	<input checked="" type="checkbox"/> Part of spray booth unit <input type="checkbox"/> Separate curing enclosure (Form 11)		
<b>Curing/Heating Type :</b>	<input checked="" type="checkbox"/> Hot air dryer <input type="checkbox"/> Infrared dryer <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Ultraviolet <input type="checkbox"/> Boiler		
<b>Fuel/Heat Type :</b>	<input checked="" type="checkbox"/> Natural gas <input type="checkbox"/> Electric <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Propane (LP) Gas <input type="checkbox"/> Diesel		
<b>Maximum Heating Rate (MMBtu/hr):</b>	1,252,800		
<b>Maximum Air Flow Rate (acfm):</b>	14,500		

\*\*\*RETURN TO ORCAA\*\*\*

### Coating Operation Information

Type:	<input type="checkbox"/> Existing Stationary Source	<input type="checkbox"/> Temporary Source	<input type="checkbox"/> New Stationary Source
NAICS Code(s):			

### Coating Equipment Information

	Applicator #1	Applicator #2	Applicator #3	Applicator #4	Applicator #5	
Coating Type**:	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input checked="" type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating
Manufacturer:						
Model:						
Quantity:						
Technology Type:	<input checked="" type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	
Automation/Control:	<input checked="" type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	
Air Supply Pressure (psi):	40					
Fluid Output Pressure (psi):	10					
Mounting:	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	

\*\*Only provide further information for applicators that are not roller/brush

### Dry Filter Information

	Pre-Filter	Exhaust Filter
Manufacturer:	Gardair	Superior Glass Fiber
Model:	NV 0123	NV 0125
Media Type:	Polyester	Glass Fiber-22 GRM
Overall Arrest Efficiency (%):	90.6	98
Filtered Area (squared feet):	32	405



### Heavy Metal Information

Application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd):	<input type="checkbox"/> Yes** <input checked="" type="checkbox"/> No
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\*\*Please provide SDS/ MSDS information and estimated annual usage for each product

### Other Process Information

Abrasive Blasting:	<input type="checkbox"/> Yes (Form 17) <input type="checkbox"/> No
Welding:	<input type="checkbox"/> Yes (Form 19) <input type="checkbox"/> No
Metal Cutting:	<input type="checkbox"/> Yes (Form 31) <input type="checkbox"/> No
Fluidized Bed Coating:	<input type="checkbox"/> Yes <input type="checkbox"/> No

### Cleaning/Etching/Degreasing Information

Methylene Chloride Stripping:	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Phosphate or Chromate Conversion Coating:	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Chemical/Acid Rinsing or Bathing:	<input type="checkbox"/> Yes** <input type="checkbox"/> No

\*\*Please provide SDS/ MSDS information and estimated annual usage for each product

### Exhaust/Stack/Building Information

Motor Power (hp):	
Exhaust Air Flow Rate at 0.65" w.g. (acfm):	16,000
Fan Diameter (feet):	3-6'
Stack Type:	<input checked="" type="checkbox"/> Vertical (Ceiling Outlet) <input type="checkbox"/> Horizontal (Wall Outlet)
Stack Height (feet from ground):	Currently @ 23'
Stack Inside Diameter (inches):	42"
Stack weatherproof damper or exhaust apparatus:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Butterfly <input type="checkbox"/> Hexagonal <input type="checkbox"/> Inverted cone <input type="checkbox"/> Stack within stack <input type="checkbox"/> Other (explain in attachment)
Bldg. Peak Height (feet):	32'
Bldg. Width (feet):	220'
Bldg. Length (feet)	300'

### Air Quality Modeling Site Information

Distance from the centroid of the stack to the shop's property line (feet):	267' 7"
Distance from the centroid of the stack to the nearest point on the property line of a permanent residence (feet):	267' 7"

### Filing Fee:

See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

## Material Usage Information

Provide the following information and attach copies of Material Safety Data Sheets (MSDS) used in all coating operations, including but not limited to pre-treatment wash, chemical strippers, paint, primer, topcoat, clearcoat, gelcoat, lacquer, stain, catalyst, activator, hardener, resin, filler, sealer, adhesive, solvent and thinner/reducer and any other materials used which contain volatile organic compounds (VOC). Use additional pages if necessary. For similar materials such as multiple color variations of a stain or paint, enter as single item with a usage rate representing the total gallons of all variations used, and provide the MSDS for the constituent which is most used.

NAME OF MATERIAL (as on SDS/ MSDS):	ESTIMATED ANNUAL USAGE (in gallons):	Applicator # ( as defined in the “Coating Equipment Information” section):
Daubond Membrane Press Glue 6477M3	24	#1
COLORTOOLS WIPE STAIN II CLEAR BASE - 30200	18	#1
WOODSONG II NGR Spray Stain Base - WS2NB4	18	#1



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## FORM 12

Fill out all the applicable equipment information requested below and submit the appropriate fees.

### BAGHOUSE

#### General Information

<b>Facility Name:</b> I-5 Design Build, Inc.	<b>Contact Person:</b> Daniel Scamman		
	<b>Phone Number:</b> 360.480.8390		
	<b>Email:</b> dans@i5design.com		
<b>Facility Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr  <b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	<b>Baghouse Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr  <b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun		
<input checked="" type="checkbox"/> New Unit Installation <input type="checkbox"/> Modification	<b>Manufacturer:</b> Donaldson	<b>Model #</b>	<b>Serial #</b> SR99000479

#### Technical Specifications

<b>Air Flow:</b> Design ACFM <u>15,000</u> CFM Operating ACFM <u>15,000</u> CFM Temperature <u>70</u> °F	<b>Particulate Control Efficiency:</b> Pressure Drop (inches of water) <u>4"</u> Water Vapor Content (lbs/water/lbs dry air) <u>N/A</u> Fan Power (hp) <u>75HP</u>
Describe Filter Material: Spunbond Polyester Substrate Proprietary Ultra Web Technology	
Describe bag cleaning mechanism and cycle: Reverse Pulse Jet Cleaning of Filters	
Describe operation of baghouse, including use of safety bypasses, monitoring and maintenance schedules, and any other pertinent information relating to particulate emissions (use additional pages if necessary):  Baghouse will source capture dust from various woodworking	
<b>Particulate Emissions Data</b>	
<b>Particulate Emissions:</b>	<b>Particulate Control Efficiency:</b>
Inlet (gr/scf) _____	Filtering Velocity (acfm/ft <sup>2</sup> cloth) _____
Outlet (gr/scf) _____	Particulate Control Efficiency (%) <u>.3-1</u> PM _____

Describe Particulate Emissions:

Micron Range	Inlet Loading (% of total)	Outlet Loading (% of total)
0 -5	_____ %	_____ %
5 – 10	_____ %	_____ %
Greater than 10	_____ %	_____ %

**Other Information:**

The following information is needed to complete the application:

1. Manufacturer brochure or technical fact sheet for filter material.
2. Scaled technical drawings of the baghouse including top, side and interior views.
3. Manufacturer brochure or technic fact sheet for baghouse.

**Filing Fee:** See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

## GENERAL REQUIREMENTS

1. **BACT for Particulate Control:** ORCAA may require demonstration of compliance based on measured stack grain loading in accordance to the procedures outlined in 40CFR Part 60 and in accordance with ORCAA's approved particulate source test procedures.
  - 1.1 Low Temperature Process Streams - Grain Elevators, Barley Processing, Forest Products Dust, Large Cabinet Shops:
    - Particulate Limit: 0.01 gr/dscf
    - Opacity Limit: 5% for entire process stream.

These limits are appropriate for low temperature dust control when NOMEX bags are feasible.
  - 1.2 High Temperature Process Streams - Ceramics, Metal Dust:
    - Particulate Limit: 0.01 gr/dscf
    - Opacity Limit: 5% for entire process stream.
  - 1.3 Combustion Sources - Boilers, Asphalt Plants:
    - Particulate Limit: 0.02 gr/dscf (back half included)
    - Opacity Limit: 5% for entire process stream.
2. **Stack:** Emissions shall exit through a vertical stack at least 2 meters above the highest point of the baghouse. Permanent sampling ports and platforms shall be installed on the stack prior to commencement of operation. The sampling ports shall meet the requirements of 40, CFR Part 60, Appendix A, Method 1.
3. **Opacity Monitor (wood fired boilers):** Owners and operators of baghouses installed on wood fired boilers shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for continuously monitoring the boiler stack gas opacity prior to exiting to the atmosphere.
  - 3.1 The opacity CEMS shall be certified and installed in accordance 40CFR Part 60, Performance Specification 1 (appendix B).
  - 3.2 The opacity CEMS shall be equipped with a strip chart recorder or data acquisition system (DAS) capable of computing and recording stack gas opacity in three consecutive minute averages. The data acquisition system or strip chart recorder shall record and display opacity values to 0.5% opacity.
  - 3.3 Prior to installation of the CEMS, the owner or operator shall provide ORCAA a written manufacturers certificate of conformance with Performance Specification 1.
  - 3.4 An opacity CEMS quality assurance plan conforming with 40 CFR Part 60 Appendix F and the EPA publication "Recommended Quality Assurance Procedures for Opacity Continuous Emissions Monitoring Systems" (EPA 340/1-86-010) shall be developed and submitted to ORCAA for approval no later than 180 days after commencement of operation.
  - 3.5 The opacity CEMS shall be operational and tested for compliance with 40 CFR Part 60, Appendix B Performance Specification 1 no later than 90 days after initial startup.
4. **Other:** Other requirements include; 1) monitoring of pressure drop across baghouse, 2) bag monitoring and maintenance schedule, 3) full set of replacement bags on-site, 4) emission inventory reporting, and 5) excess emissions reporting.



# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502

Telephone: (360)-539-7610 – Fax: (360)-491-6308

[www.orcaa.org](http://www.orcaa.org)

## FORM 12

Fill out all the applicable equipment information requested below and submit the appropriate fees.

### BAGHOUSE

#### General Information

<b>Facility Name:</b> I-5 Design Build, Inc.	<b>Contact Person:</b> Daniel Scamman		
	<b>Phone Number:</b> 360.480.8390		
	<b>Email:</b> dans@i5design.com		
<b>Facility Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr  <b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	<b>Baghouse Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr  <b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun		
<input checked="" type="checkbox"/> New Unit Installation <input type="checkbox"/> Modification	<b>Manufacturer:</b> Donaldson	<b>Model #</b>	<b>Serial #</b> SR99000479

#### Technical Specifications

<b>Air Flow:</b> Design ACFM <u>15,000</u> CFM Operating ACFM <u>15,000</u> CFM Temperature <u>70</u> °F	<b>Particulate Control Efficiency:</b> Pressure Drop (inches of water) <u>4"</u> Water Vapor Content (lbs/water/lbs dry air) <u>N/A</u> Fan Power (hp) <u>75HP</u>
Describe Filter Material: Spunbond Polyester Substrate Proprietary Ultra Web Technology	
Describe bag cleaning mechanism and cycle: Reverse Pulse Jet Cleaning of Filters	
Describe operation of baghouse, including use of safety bypasses, monitoring and maintenance schedules, and any other pertinent information relating to particulate emissions (use additional pages if necessary):  Baghouse will source capture dust from various woodworking	
<b>Particulate Emissions Data</b>	
<b>Particulate Emissions:</b>	<b>Particulate Control Efficiency:</b>
Inlet (gr/scf) _____	Filtering Velocity (acfm/ft <sup>2</sup> cloth) _____
Outlet (gr/scf) _____	Particulate Control Efficiency (%) <u>.3-1</u> PM _____

Describe Particulate Emissions:

Micron Range	Inlet Loading (% of total)	Outlet Loading (% of total)
0 -5	_____ %	_____ %
5 - 10	_____ %	_____ %
Greater than 10	_____ %	_____ %

**Other Information:**

The following information is needed to complete the application:

1. Manufacturer brochure or technical fact sheet for filter material.
2. Scaled technical drawings of the baghouse including top, side and interior views.
3. Manufacturer brochure or technic fact sheet for baghouse.

**Filing Fee:** See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

## GENERAL REQUIREMENTS

1. **BACT for Particulate Control:** ORCAA may require demonstration of compliance based on measured stack grain loading in accordance to the procedures outlined in 40CFR Part 60 and in accordance with ORCAA's approved particulate source test procedures.
  - 1.1 Low Temperature Process Streams - Grain Elevators, Barley Processing, Forest Products Dust, Large Cabinet Shops:
    - Particulate Limit: 0.01 gr/dscf
    - Opacity Limit: 5% for entire process stream.

These limits are appropriate for low temperature dust control when NOMEX bags are feasible.
  - 1.2 High Temperature Process Streams - Ceramics, Metal Dust:
    - Particulate Limit: 0.01 gr/dscf
    - Opacity Limit: 5% for entire process stream.
  - 1.3 Combustion Sources - Boilers, Asphalt Plants:
    - Particulate Limit: 0.02 gr/dscf (back half included)
    - Opacity Limit: 5% for entire process stream.
2. **Stack:** Emissions shall exit through a vertical stack at least 2 meters above the highest point of the baghouse. Permanent sampling ports and platforms shall be installed on the stack prior to commencement of operation. The sampling ports shall meet the requirements of 40, CFR Part 60, Appendix A, Method 1.
3. **Opacity Monitor (wood fired boilers):** Owners and operators of baghouses installed on wood fired boilers shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for continuously monitoring the boiler stack gas opacity prior to exiting to the atmosphere.
  - 3.1 The opacity CEMS shall be certified and installed in accordance 40CFR Part 60, Performance Specification 1 (appendix B).
  - 3.2 The opacity CEMS shall be equipped with a strip chart recorder or data acquisition system (DAS) capable of computing and recording stack gas opacity in three consecutive minute averages. The data acquisition system or strip chart recorder shall record and display opacity values to 0.5% opacity.
  - 3.3 Prior to installation of the CEMS, the owner or operator shall provide ORCAA a written manufacturers certificate of conformance with Performance Specification 1.
  - 3.4 An opacity CEMS quality assurance plan conforming with 40 CFR Part 60 Appendix F and the EPA publication "Recommended Quality Assurance Procedures for Opacity Continuous Emissions Monitoring Systems" (EPA 340/1-86-010) shall be developed and submitted to ORCAA for approval no later than 180 days after commencement of operation.
  - 3.5 The opacity CEMS shall be operational and tested for compliance with 40 CFR Part 60, Appendix B Performance Specification 1 no later than 90 days after initial startup.
4. **Other:** Other requirements include; 1) monitoring of pressure drop across baghouse, 2) bag monitoring and maintenance schedule, 3) full set of replacement bags on-site, 4) emission inventory reporting, and 5) excess emissions reporting.





# OLYMPIC REGION CLEAN AIR AGENCY

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## FORM 13

Fill out all the applicable equipment information requested below and submit the appropriate fees.

### CYCLONES

#### General Information

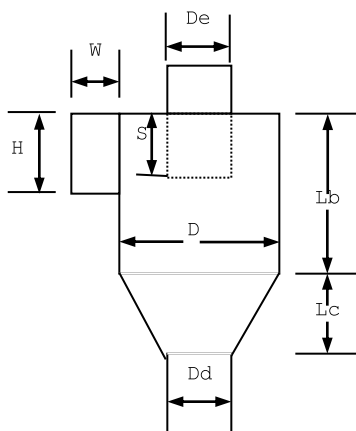
<b>Facility Name:</b> I-5 Design Build		<b>Contact Person:</b> Daniel Scamman	
		<b>Phone Number:</b> 360-480-8390	
		<b>Email:</b> dans@i5design.com	
<b>Facility Operating Schedule:</b>  8 ___ hrs/day, 5 ___ days/wk, 52 ___ wks/yr		<b>Cyclone Operating Schedule:</b>  8 ___ hrs/day, 5 ___ days/wk, 52 ___ wks/yr	
<b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun		<b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	
___ New Unit ___ Modification ___ # identical units	<b>Manufacturer:</b>	<b>Model &amp; Serial #s:</b>	

#### TECHNICAL SPECIFICATIONS

<b>Air Flow:</b> 4,200 ___ Design acfm  4,200 ___ Operating acfm	<b>System Parameters:</b> 14 ___ Pressure Drop (inches water) 15 ___ Fan Power (hp) ___ Temperature (°F or ambient)	Filter emissions from the CNC Router and the Edgbanding Machine
---	--	---

#### Cyclone Design Parameters

S (in.) \_\_\_\_\_  
 H (in.) \_\_\_\_\_  
 De (in.) \_\_\_\_\_  
 Dd (in.) \_\_\_\_\_  
 W (in.) \_\_\_\_\_  
 D (in.) 30" Diam.  
 Lb (in.) \_\_\_\_\_  
 Lc (in.) \_\_\_\_\_



Describe location of cyclone including height and related stack (use additional pages if necessary):

Describe operation of cyclone including use of safety bypass stacks (use additional pages if necessary):

**PARTICULATE EMISSIONS DATA**

Describe Particulate Emissions:

**OTHER INFORMATION**

The following information is needed to complete the application:

1. Manufacturer brochure or technical fact sheet for cyclone.

**Filing Fee:**

See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

## GENERAL REQUIREMENTS

1. **BACT for Particulate Control:** ORCAA may require demonstration of compliance based on measured stack grain loading in accordance Oregon DEQ Method 8.
  - 1.1 Low Temperature Process Streams - Grain Elevators, Barley Processing, Forest Products Dust, Large Cabinet Shops:  
Particulate Limit: 0.01 gr/dscf  
Opacity Limit: 5% for entire process stream.
  - 1.2 High Temperature Process Streams - Ceramics, Metal Dust:  
Particulate Limit: 0.01 gr/dscf  
Opacity Limit: 5% for entire process stream.
  - 1.3 Combustion Sources - Boilers, Asphalt Plants:  
Particulate Limit: 0.02 gr/dscf (back half included)  
Opacity Limit: 5% for entire process stream.
2. **Stack (combustion units):** Emissions shall exit through a vertical stack at least 2 meters above the highest point of the combustion system. Permanent sampling ports and platforms shall be installed on the stack prior to commencement of operation. The sampling ports shall meet the requirements of 40, CFR Part 60, Appendix A, Method 1.
3. **Opacity Monitor (wood fired boilers):** Owners and operators of cyclones installed on wood fired boilers shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for continuously monitoring the boiler stack gas opacity prior to exiting to the atmosphere.
  - 3.1 The opacity CEMS shall be certified and installed in accordance 40CFR Part 60, Performance Specification 1 (appendix B).
  - 3.2 The opacity CEMS shall be equipped with a strip chart recorder or data acquisition system (DAS) capable of computing and recording stack gas opacity in three consecutive minute averages. The data acquisition system or strip chart recorder shall record and display opacity values to 0.5% opacity.
  - 3.3 Prior to installation of the CEMS, the owner or operator shall provide ORCAA a written manufacturer's certificate of conformance with Performance Specification 1.
  - 3.4 An opacity CEMS quality assurance plan conforming with 40 CFR Part 60 Appendix F and the EPA publication "Recommended Quality Assurance Procedures for Opacity Continuous Emissions Monitoring Systems" (EPA 340/1-86-010) shall be developed and submitted to ORCAA for approval no later than 180 days after commencement of operation.
  - 3.5 The opacity CEMS shall be operational and tested for compliance with 40 CFR Part 60, Appendix B Performance Specification 1 no later than 90 days after initial startup.
4. **Other:** Other requirements may include; 1) visual monitoring opacity of cyclone emissions, 2) no fugitive leaks from dust collection system, 3) emission inventory reporting, and 4) excess emissions reporting.



# OLYMPIC REGION CLEAN AIR AGENCY

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## FORM 19

Fill out all the applicable equipment information requested below and submit the appropriate fees.

### Welding

#### Shop Information

<b>Business Name:</b> I-5 Design Build, Inc.	<b>Contact Person:</b> Daniel Scamman
	<b>Phone Number:</b> 360-480-8390
	<b>Email:</b> dans@i5design.com
<b>Operating Schedule:</b> 8 hrs/day, 5 days/wk, 52 wks/yr	<b>Indicate days when operating:</b> <input checked="" type="checkbox"/> M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> Thu <input type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun

#### Welding Operation Information

<b>Type:</b>	<input type="checkbox"/> Existing Stationary Source <input type="checkbox"/> Temporary Source <input checked="" type="checkbox"/> New Stationary Source
<b>NAICS Code(s):</b>	

#### Welding Information

<b>Type:</b>	<input type="checkbox"/> Flux Cored Arc <input checked="" type="checkbox"/> Gas Metal Arc <input type="checkbox"/> Plasma Arc <input type="checkbox"/> Laser or Electron Beam <input type="checkbox"/> Orbital/Tube Arc <input type="checkbox"/> Shielded Metal Arc <input type="checkbox"/> Submerged Arc <input type="checkbox"/> Resistance <input type="checkbox"/> Gas Tungsten Arc <input type="checkbox"/> Oxy-Fuel <input type="checkbox"/> Solid-State <input type="checkbox"/> Other (explain in attachment)
<b>Equipment Type:</b>	<input type="checkbox"/> Spot Welder(s) <input checked="" type="checkbox"/> Arc Welder(s) <input type="checkbox"/> Lasers <input type="checkbox"/> Beam Welder(s) <input type="checkbox"/> Steam Welder(s) <input type="checkbox"/> Other (explain in attachment)
<b>Fume Control Methods:</b>	<input type="checkbox"/> Enclosure (i.e. Tent, Room, Booth or Cabinet) <input type="checkbox"/> Water Curtains <input type="checkbox"/> Building Ventilation System <input type="checkbox"/> Portable Fume Extractor <input checked="" type="checkbox"/> Drapes <input type="checkbox"/> None <input type="checkbox"/> Wall Fan(s) <input checked="" type="checkbox"/> Other (explain in attachment)
<b>Exhausts to Outdoors:</b>	<input type="checkbox"/> Yes, fill out exhaust information <input checked="" type="checkbox"/> No

#### Enclosure Information

<b>Type:</b>	<input type="checkbox"/> Fully enclosed <input type="checkbox"/> Closed top open front (CTOF) <input type="checkbox"/> Open table/bench <input type="checkbox"/> Other (explain in attachment)	
<b>Exhaust:</b>	<input type="checkbox"/> Side Wall <input type="checkbox"/> Pit/Trench Design <input type="checkbox"/> Ceiling <input type="checkbox"/> Rear Wall <input type="checkbox"/> Front/Doors <input type="checkbox"/> Ducting	
<b>Width (feet):</b>	<b>Length (feet):</b>	<b>Height (feet):</b>
<b>Manufacturer:</b>		
<b>Model Number:</b>		
<b>Serial Number:</b>		
<b>Pressure Gauge:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Filter Plenum:</b>
<b>Air Pollution Control Methods:</b>	<input type="checkbox"/> Water Wash <input type="checkbox"/> Cyclone (Form 13) <input type="checkbox"/> Portable Dust Collector <input type="checkbox"/> Cartridge Unit (Form 12) <input type="checkbox"/> Baghouse (Form 12) <input type="checkbox"/> Other (explain in attachment)	

\*\*\*RETURN TO ORCAA\*\*\*

### Filter Information for Fume Control Methods

	Pre-Filter	Exhaust Filter
Manufacturer:		
Model:		
Media Type:		
Overall Arrest Efficiency (%):		
Filtered Area (squared feet):		

### Electrode Information

AWS Classification(s):		
Worst Case Heavy Metal and Silica Composition (if applicable):	Trace Elements	Total Concentration (%)
	<input type="checkbox"/> Antimony (Sb)	
	<input type="checkbox"/> Arsenic (As)	
	<input type="checkbox"/> Barium (Ba)	
	<input type="checkbox"/> Beryllium (Be)	
	<input type="checkbox"/> Cadmium (Cd)	
	<input type="checkbox"/> Hexavalent Chromium (Cr VI)	
	<input type="checkbox"/> Copper (Cu)	
	<input type="checkbox"/> Lead (Pb)	
	<input type="checkbox"/> Mercury (Hg)	
	<input type="checkbox"/> Nickel (Ni)	
	<input type="checkbox"/> Selenium (Se)	
	<input type="checkbox"/> Silver (Ag)	
	<input type="checkbox"/> Thallium (Tl)	
<input type="checkbox"/> Zinc (Zn)		
Storage Methods:		

### Other Filler Information

Flux Type:	
Flux Storage and Handling:	

### Base Material Information

Type:	<input type="checkbox"/> Steel <input type="checkbox"/> Stainless Steel <input checked="" type="checkbox"/> Aluminum	<input type="checkbox"/> Copper Alloys <input type="checkbox"/> Nickel Alloys <input type="checkbox"/> Glass	<input type="checkbox"/> Other (explain in attachment)
Surface Coatings:	<input type="checkbox"/> Anticorrosive <input type="checkbox"/> Shop primers	<input type="checkbox"/> Antifouling <input type="checkbox"/> Metal-based	<input type="checkbox"/> Other (explain in attachment)
SAE Steel Grade(s):			

### Exhaust/Stack/Building Information

<b>Motor Power (hp):</b>	
<b>Exhaust Air Flow Rate at 0.65" w.g. (acfm):</b>	
<b>Fan Diameter (feet):</b>	
<b>Stack Height (feet from ground):</b>	
<b>Stack Inside Diameter (inches):</b>	
<b>Stack weatherproof damper or exhaust apparatus**:</b>	<input type="checkbox"/> None <input type="checkbox"/> Butterfly <input type="checkbox"/> Hexagonal <input type="checkbox"/> Inverted cone <input type="checkbox"/> Stack within stack <input type="checkbox"/> Other (explain in attachment)
<b>Bldg. Peak Height (feet):</b>	
<b>Bldg. Width (feet):</b>	
<b>Bldg. Length (feet)</b>	

\*\*See back of form for information on ORCAA-approved stack equipment

### Air Quality Modeling Site Information

<b>Distance from the centroid of the stack to the shop's property line (feet):</b>	
<b>Distance from the centroid of the stack to the nearest point on the property line of a permanent residence (feet):</b>	

### Filler Material Usage Information

Provide the following information and attach copies of Material Safety Data Sheets (MSDS) for any material used including, but not limited to blasting media, base material and surface coatings, which contain toxic air pollutants. Use additional pages if necessary.

NAME OF MATERIAL (as on MSDS):	ESTIMATED ANNUAL USAGE (in gallons or lbs):



# ORDER OF APPROVAL NOTICE OF CONSTRUCTION 17NOC1246

ISSUED TO I5 Design Build, Inc.  
ON JAN 05 2018

This Order of Approval (“Order”) is issued in accordance with Olympic Region Clean Air Agency (“ORCAA”) Regulations and Chapter 173-400 of the Washington Administrative Code.

Conditional approval to establish and operate two cyclones (“Approved Equipment”) at 8751 Commerce Place Drive NE, Lacey, Washington (“Approved Location”) for operation solely as described in the associated Notice of Construction (“NOC”) application No. 17NOC1246, is hereby GRANTED to I5 Design Build, Inc. (“Applicant”), subject to the Conditions of Approval listed below.

This Order and the Conditions of Approval herein remain in effect for the life of the Approved Equipment as used at the Approved Location and shall be binding on Applicant, current owners and operators of the equipment, and Applicant’s heirs, successors and assigns unless amended or superseded by a subsequent Order issued by ORCAA or unless the equipment is permanently shut down. The Applicant must notify any subsequent owner, operator, heirs, successor or assigns of this Order and the Conditions of Approval herein.

Conditions of Approval established in this Order shall be enforceable in addition to any applicable state, local and federal regulations or standards in existence now or in the future. Compliance with the conditions of this Order do not relieve the Applicant or any owner or operator from compliance with ORCAA Regulations, Chapter 70.94 Revised Code of Washington (RCW), or any other emissions control requirements, nor from any penalties for failure to comply with the same. Applicant may appeal this Order to the Pollution Control Hearings Board (“PCHB”) by filing a written appeal with the PCHB and serving a copy upon ORCAA within thirty (30) days of receipt of this Order.

**This Order is GRANTED, issued at the Approved Location, subject to the following Conditions of Approval:**

1. **Approved Equipment:** Equipment listed in the following table is approved to be installed and operated in accordance with information and specifications documented in the associated NOC application and conditions in this Order of Approval (Order). Deviations from approved equipment may constitute a violation of this condition and ORCAA Regulations, unless prior approval is granted by ORCAA.

**Table 1: Approved equipment technical summary**

Equipment	Manufacturer	Specifications
Cyclone	Unknown	<ul style="list-style-type: none"> <li>▪ 30” Diameter</li> <li>▪ Fan power (hp): 15</li> <li>▪ Filters emissions from the CNC Router and the edgebanding machine</li> </ul>

[Authority: ORCAA 6.1.2(f)]

2. **Visible Emissions Limit:** Visible emissions from the cyclone shall not exceed 10% opacity during any 6-minute average period in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

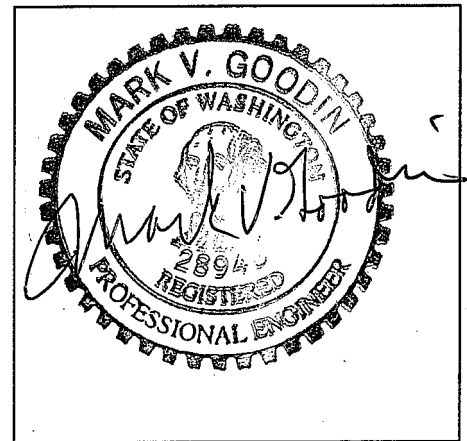
[Authority: ORCAA Regulation 6.1.4(a)(2), Origin: WAC 173-400-113]



3. **Visual Opacity Surveys:** Visual opacity surveys shall be conducted monthly and according to the following practices:
  - a. Surveys shall be conducted during daylight hours while the cyclone and the equipment ducted to the cyclone are in operation.
  - b. Observer certification for plume evaluation is not required to conduct the survey. However, it is necessary that the observer is educated on the general procedures for determining the presence of visible emissions. As a minimum, the observer must be trained and knowledgeable regarding the effects on the visibility of emissions caused by background contrast, position of the sun and amount of ambient lighting, observer position relative to source and sun, and the presence of uncombined water.
  - c. The cyclone stack shall be observed for a minimum cumulative duration of 15 seconds during the survey.
  - d. Any visible emissions other than uncombined water shall be recorded as a positive reading associated with the emission point.  
[Authority: ORCAA Regulation 6.1.4(a)(2)]
  
4. **Operation and Maintenance:** The following shall be completed at the specified time interval. At any point, ORCAA may require I5 Design to create and implement an Operations & Maintenance (O&M) Plan if it is deemed necessary to ensure that the cyclone is kept in good operating condition and repair.
  - a. The hopper area shall be kept clean to minimize emissions to the ambient atmosphere. At a minimum, this can include regularly unloading the hopper, sweeping the area, and adequately disposal of the waste.
  - b. Weekly self-inspections shall be conducted to ensure that the doors/seals on the cyclone and surrounding ductwork are fully sealed.  
[Authority: ORCAA 4.3(g), ORCAA 8.8]
  
5. **Recordkeeping:** The following records shall be maintained on site for at least five years:
  - a. A copy of ORCAA's Final Determination and Approval Order;
  - b. The opacity survey results required in Condition # 3; and,
  - c. A record of equipment repair and parts replacement.  
[Authority: ORCAA 8.11]

*Lauren Whybrew* 1/4/18  
 PREPARED BY: Lauren Whybrew, Engineer I Date

*Mark V Goodin* 1/5/18  
 REVIEWED BY: Mark V. Goodin, PE Date







# NOTICE OF CONSTRUCTION FINAL DETERMINATION TO APPROVE

Olympic Region Clean Air Agency

Issued to:	I5 Design Build, Inc.	County:	67
Location:	8751 Commerce Place Dr. NE Lacey, WA 98516	Source:	29
Application #:	17NOC1246	RC:	RC5
Prepared on:	December 14, 2017	File:	683

## 1. Project Description & Emissions

I5 Design Build, Inc. (I5 Design) is a manufacturing and graphics design company in Lacey, WA that is currently registered as a minor source with ORCAA. I5 Design's expertise includes designing and manufacturing projects for casinos, bars and lounges, supermarkets, and more. Emissions from the facility include volatile organic compounds (VOCs), hazardous air pollutants (HAPs), toxic air pollutants (TAPs) and particulate matter (PM) from spray coating and cutting operations. The spray coating operations of this facility were reviewed in a previous NOC. This permitting action reviews air emission consequences of a recently installed cyclone that is used to transport particulate matter from a CNC Router and an Edgebander. Materials processed at the facility consist primarily of wood, although acrylic and aluminum are processed occasionally.

### 1.1 Summary of Proposal

The purpose of this document is to document ORCAA's review of I5 Design's previously unpermitted cyclone. This unit should have been reviewed by ORCAA prior to installation. Particulate residuals are generated by a CNC Router (Homage Vantage 12L) and an edgebanding machine that cut and mill materials. Materials milled and cut at the facility mostly consist of wood, with some acrylic and aluminum.

Residuals are routed pneumatically to the cyclone, which separates them from the air-stream. Residuals captured by the cyclone are emptied into a bin for storage prior to disposal. After separating residuals, the cyclone exhausts to the ambient air. Because cyclones are not efficient in separating fine particulate from an air-stream, the exhaust includes fine particulate air emissions, which is the subject of this review.

The cyclone emits particulate matter (PM), including particulate matter less than 10 micrometers in diameter (PM<sub>10</sub>), and particulate matter less than 2.5 micrometers in diameter (PM<sub>2.5</sub>) into the atmosphere. The table below lists all known equipment at I5 Design with the potential to generate or emit air pollution. The table also indicates whether an air permit is required and, if permitted, the ORCAA permit identification number.

**Table 1.1 I5 Design's equipment inventory and technical information**

Equipment	Manufacturer	Specifications	NOC Permit #
Cyclone	Unknown (listed as 'Custom' in application)	<ul style="list-style-type: none"> <li>▪ 30" Diameter</li> <li>▪ Design air flow: 4,200 acfm</li> <li>▪ Typical operating air flow: 4,200 acfm</li> <li>▪ Pressure drop (inches of water): 14</li> </ul>	17NOC1246

Equipment	Manufacturer	Specifications	NOC Permit #
		<ul style="list-style-type: none"> <li>▪ Fan power (hp): 15</li> <li>▪ Filters emissions from the CNC Router and the edgebanding machine</li> </ul>	
Spray Booth	Unknown	<ul style="list-style-type: none"> <li>▪ Reverse Flow Cross Flow</li> <li>▪ Model # R261610</li> <li>▪ Fully enclosed: 26' length, 16' width, 10' height</li> <li>▪ 3 HP fan motor</li> <li>▪ Rated at 16,000 @ 0.65" wc</li> <li>▪ 23' stack height (from ground); 6' from peak of building</li> <li>▪ 42" stack diameter</li> <li>▪ Equipped with differential pressure gauge</li> <li>▪ Dry filters</li> <li>▪ Filter area: 83.3 ft<sup>2</sup></li> <li>▪ HVLP guns</li> </ul>	01NOC105
CNC Router	Homage	<ul style="list-style-type: none"> <li>▪ Model: Vantage 12L</li> <li>▪ Versatile machine that is capable of sizing, profiling, drilling, grooving, and dividing</li> <li>▪ I5 design primarily uses this machine to work on wood, and occasionally works on acrylic and aluminum.</li> </ul>	N/A
Edgebander	Brandt	<ul style="list-style-type: none"> <li>▪ Model: Unknown</li> <li>▪ Applies edges onto cabinets</li> <li>▪ Equipped with a gluing and trimming unit</li> </ul>	<i>This equipment alone does not trigger NSR. PM pneumatically routed from the equipment to the cyclone triggers review of the cyclone</i>
Wet vacuum dust collector	Diversitech	<ul style="list-style-type: none"> <li>▪ Controls emissions from SlipCon Brush Sanding Tech machine (below)</li> <li>▪ Model: WX-6500</li> <li>▪ 4000-6500 CFM</li> <li>▪ Motor: 15 HP</li> </ul>	N/A
SlipCon Brush Sanding Machine	Apex	<ul style="list-style-type: none"> <li>▪ PM routed to Diversitech wet vacuum dust collector (above)</li> <li>▪ Primarily used for sanding wood</li> </ul>	<i>If operated according to manufacturer specifications, this unit is considered insignificant with respect to NSR</i>

## 1.2 Summary of Permitting Action

### Modification or Installation of a New Air Contaminant Stationary Source

Prior to the modification or installation of a stationary air contaminant source that results in increases of air pollution above de minimis levels, the owner is required to undergo New Source Review (NSR). The goal of NSR is to assure modifications to existing sources of air pollution and the installation of new sources of air pollution are established in a manner that maintains compliance with applicable air regulations and standards, including equipment performance standards and ambient air quality standards. NSR is initiated by the project proponent through submitting a Notice of Construction (NOC) application, which contains information on the proposed project with sufficient detail to characterize air impacts.

In I5 Design's case, the installation of the cyclone qualified as construction of an air contaminant stationary source or emission point (EP).

## 1.3 Summary of Findings

Approval of I5 Design's NOC application was contingent on verifying the new cyclone met the required criteria for approval established in ORCAA Rule 6.1. ORCAA staff reviewed I5 Design's NOC application for the cyclone and concluded the following with respect to these criteria:

- **Air Quality Regulations** – All operations at the Facility, including the new cyclone will likely comply with applicable air quality regulations such as federal new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAPs), or any performance standards adopted under chapter 70.94 of the Revised Code of Washington (RCW) and ORCAA Regulations;
- **BACT** – The Facility employs “Best Available Control Technology” (BACT) to control air pollutants emitted by the cyclone;
- **Protection of Ambient Air Quality** – Predicted cumulative worst-case impacts of criteria air pollutants from the Facility will not cause or contribute to violation of any National and Washington Ambient Air Quality Standards (NAAQS and WAAQS), which are established to protect human health and welfare. Emissions from the cyclones will not cause or contribute to a violation of any ambient air quality standard; and,
- **Air Toxics Regulation** – There are no toxic air pollutant emissions resulting from the cyclone.

#### 1.4 ORCAA's Final Determination

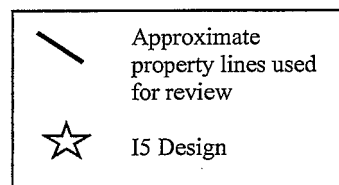
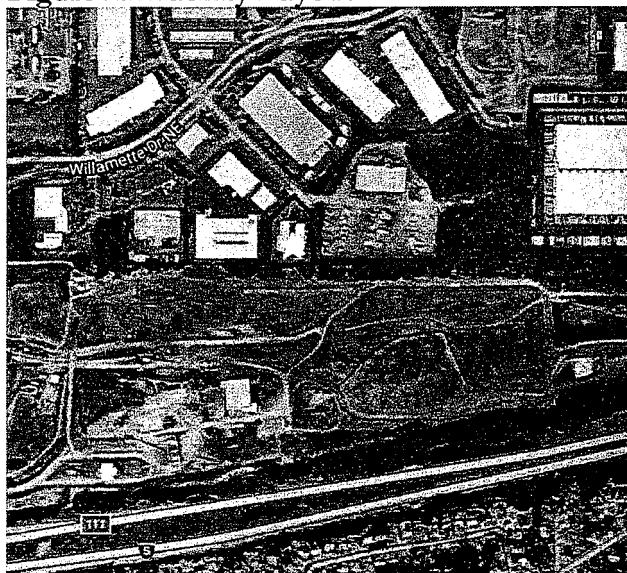
ORCAA reviewed I5 Design's NOC application and recommends approval, subject to the enforceable conditions in the attached Order of Approval, which are also summarized in Section 6 of this Final Determination. The recommended approval conditions included in this determination are designed to ensure compliance with applicable requirements. These conditions impose emission limitations, management practices, and recordkeeping, reporting and monitoring requirements.

## 2. Facility History

### 2.1 Site Background

I5 Design is a manufacturing and graphics design company in Lacey, WA that is currently registered as a minor source with ORCAA. Adjacent property includes the Thurston County Waste and Recovery Center-Landfill and other industrial sources or warehouses.

Figure 2.1 Facility Layout



**Table 2.1 ORCAA permitting history with I5 Design**

Document	Date of Action	Description	Status
NOC (# 91NOC445)	February 21, 1991	ORCAA approved the establishment of an electrostatic airless spray painting operation at 3005 Marvin Road NE, Olympia	No Longer Valid (Old address)
NOC (# 01NOC105)	April 16, 2002	ORCAA approved the establishment of a spray coating operation and the installation of a spray booth at new location (8751 Commerce Pl. Dr. NE, Lacey)	Active

## Section 3. Air Emissions

### 3.1 Potential to Emit

Regulated air pollutant emissions to the ambient atmosphere from the new installed cyclone consist of particulate matter (PM), including particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>). I5 Design primarily uses the CNC Router to cut wood but sometimes will cut acrylic and aluminum. While acrylic does contain some toxic constituents (such as methyl methacrylate), the acrylic is received and processed at the facility while in the solid phase. Compounds, such as methyl methacrylate, are “locked up” or polymerized prior to arriving at I5 Design. In addition, the airstream going to the cyclone is at room temperature. For these reasons, ORCAA staff determined that emission factors relating to wood particulate matter adequately represents the emissions from the cyclone in this case. In addition, it was confirmed during this review that I5 Design does not paint or surface coat any wood.

The Edgebander machine does include a gluing component to apply ‘edges’ onto cabinets. The SDS sheet for this glue (Jowat clearmelt 280.90) was reviewed by ORCAA and determined to be insignificant, provided that I5 uses the glue according to the manufacturer specifications (such as not overheating the glue to avoid thermal decomposition and emission of toxic fumes).

Potential-to-emit (PTE) is defined as the maximum possible emissions, given physical and regulatory limitations. On this basis, ORCAA staff calculated likely PTE emissions from the cyclone operating according to the schedule stated in I5 Design’s application- eight hours a day, five days a week, and fifty-two weeks a year. PTE of all regulated air pollutants are summarized in Table 3.1.

Wood, acrylic, and aluminum residuals are conveyed pneumatically to the cyclone. I5 design does not have any bags or filters downstream of the cyclone. For the purpose of quantifying emissions from the cyclone, ORCAA used the maximum grain loading rate identified in the U.S. EPA’s Compilation of Air Pollutant Emission Factors (AP-42).

**Table 3.1 Summary of PTE emissions from cyclone for particulate matter**

Cyclone	PTE Emissions (tpy)		
	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>
CNC Router/Edgebander Cyclone	1.1	0.4	0.2

- TSP factor: Table 10.4.1 AP-42, p. 10.4-2 (2/80)
- PM-10 factor cal. from ratio of P/PM-10 in EPA factor book 450/4-90-003 p. 144, then applied to factor in AP-42 p. 10.4-2
- PM-10 is 40% of PM. Ratio also in the FIRE factors v. 6.22 PM-10 = 40% PM, factor units: lb PM SCFM Yr
- PM<sub>2.5</sub> factor= 0.4 x PM<sub>10</sub> factor

## Section 4. ORCAA's Approval Checklist

**Fees:** Initial fees associated with the review and filing of NOC Application (# 17NOC1246) have been assessed according to ORCAA 3.3 and have been paid. Additional fees may be assessed depending on the amount of time taken to process the NOC application and issue the Final Determination.

**SEPA:** The installations are exempt per WAC 197-11-800(3) since they involved only repair, remodeling, maintenance or minor alteration of existing structures, equipment or facilities and did not involve any material expansions or changes in use (describe basis).

Minor alterations of already existing structures. An environmental checklist for this facility was received by ORCAA on July 19, 2001 (DNS issued by the City of Lacey is attached).

**Air Quality Regulations:** ORCAA staff determined that the Facility complies with ORCAA Rule 6.1.4(a)(1) requiring the finding that a new stationary source of air pollution or modification to an existing stationary source of air pollution will comply with all applicable federal emission standards including new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAP), national emission standards for hazardous air pollutants for source categories (MACT standards), emission standards adopted under chapter 70.94 of the Revised Code of Washington (RCW), and any applicable emissions standard of ORCAA. A summary of relevant air regulations and standards and whether or not they apply to the cyclones is shown in Table 4.1 below.

**Best Available Control Technology (BACT):** ORCAA staff determined that the requirement of ORCAA Rule 6.1.4(a)(2) is met, which requires a finding that any new stationary source of air pollution or modification to an existing stationary source of air pollution in an attainment or unclassifiable area will employ Best Available Control Technology (BACT) for all pollutants not previously emitted or whose emissions would increase as a result of the new source or modification.

**Protection of Ambient Air Quality:** ORCAA staff determined that the requirement of ORCAA Rule 6.1.4(a)(3) is met, which requires a finding that any new stationary source of air pollution or modification to an existing stationary source of air pollution will not delay the attainment date for an area not in attainment, or cause or contribute to a violation of any AAQS as result of the new source or modification.

**Washington Air Toxics Regulation:** ORCAA staff determined that the requirements of ORCAA Rule 6.1.4(a)(5) were met, which requires a finding that any new stationary source of air pollution or modification to an existing stationary source of air pollution that emits TAPs comply with the requirements of Chapter 173-460 WAC, also known as the Washington Air Toxics Regulation.

**Other Permits:** ORCAA staff determined that a Title V air operating permit (AOP) is not required, since the Facility's potential to emit is not major for any HAP or criteria pollutant, or cumulative HAP. ORCAA staff also determined that a prevention of significant deterioration (PSD) permit is not required, since the Facility's potential to emit is minor with respect to the State's PSD program in WAC 173-400.

**Public Notice:** ORCAA staff determined that a public notice of receipt of the NOC Application (# 17NOC1246), pursuant to ORCAA 6.1.3(a), was issued on August 23, 2017. No comments were received during the comment period.

### National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 61

There are no relevant NESHAP that apply to I5 Design's cyclone.

## National Standards of Performance for New Stationary Sources (NSPS) – 40 CFR Part 60

There are no relevant NSPS that apply to I5 Design’s cyclone.

## National Emissions Standards for HAP for Source Categories (MACT) – 40 CFR Part 63

40 CFR Part 63 Subpart JJ regulates wood furniture manufacturing operations. §63.800(a) exempts facilities from subpart JJ that are not major. I5 Design is a minor source, and as such, there are no applicable MACT requirements from 40 CFR Part 63 subpart JJ.

**Table 4.1: Summary of relevant standards**

Regulation Title <i>Citation</i>	Description	Applicable?	Compliance Likely?
ORCAA Requirements, Prohibitions, and Performance Standards <i>ORCAA Regulations 4, 7 and 8</i>	These general regulations may apply to any source or emission unit causing air pollution. A more detailed description of the general regulations is shown in Table A1 of Appendix 1.	Yes	Yes
General Regulations for Air Pollution Sources <i>Chapter 173-400 WAC</i>	Implementing the WCAA, these regulations may apply to any source where any emission unit is required to use BACT. A more detailed description of the general regulations is shown Table A1 of Appendix 1.	Yes	Yes
Requirements for New Sources of Toxic Air Pollutants <i>Chapter 173-460 WAC</i>	Implementing the WCAA, these regulations may apply to any source emitting TAPs, where the source must quantify the increase of each TAP emission, employ T-BACT, and prevent air pollution maintaining an air quality that will protect human health.	No	N/A

## Section 5. Best Available Control Technology (BACT)

New sources of air pollution and modifications to existing sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in Chapter 173-400 WAC as, “an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under chapter 70.94 RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant.”

New or modified emission units are required to use t-BACT for emissions control for TAP with emission increases that trigger WAC 173-460-060. Best available control technology for toxics (t-BACT) is defined in WAC 173-460-020 as, “the term defined in WAC 173-400-030, as applied to TAP.” The cyclone will not emit any TAP, so t-BACT does not apply.

**Table 5.1: BACT evaluation for cyclones**

Pollutant	BACT Applicable?	t-BACT Applicable?	Description: Describe BACT limits, and control technology or methods to meet BACT limits.
PM, PM <sub>10</sub> , PM <sub>2.5</sub>	Yes	No	<ul style="list-style-type: none"> <li>10% opacity limit at cyclone exhaust for any 6-minute average period as determined by EPA Reference Method 9 of 40 CFR Part 60, Appendix A.</li> </ul>

## Section 6. Conditions of Approval

The following conditions of approval are necessary for assuring compliance with applicable air regulations and standards:

1. **Approved Equipment:** Equipment listed in the following table is approved to be installed and operated in accordance with information and specifications documented in the associated NOC application and conditions in this Order of Approval (Order). Deviations from approved equipment may constitute a violation of this condition and ORCAA Regulations, unless prior approval is granted by ORCAA.

**Table 1: Approved equipment technical summary**

Equipment	Manufacturer	Specifications
Cyclone	Unknown	<ul style="list-style-type: none"> <li>▪ 30" Diameter</li> <li>▪ Fan power (hp): 15</li> <li>▪ Filters emissions from the CNC Router and the edgebanding machine</li> </ul>

[*Authority: ORCAA 6.1.2(l)*]

2. **Visible Emissions Limit:** Visible emissions from the cyclone shall not exceed 10% opacity during any 6-minute average period in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[*Authority: ORCAA Regulation 6.1.4(a)(2), Origin: WAC 173-400-113*]

3. **Visual Opacity Surveys:** Visual opacity surveys shall be conducted monthly and according to the following practices:
  - a. Surveys shall be conducted during daylight hours while the cyclone and the equipment ducted to the cyclone are in operation.
  - b. Observer certification for plume evaluation is not required to conduct the survey. However, it is necessary that the observer is educated on the general procedures for determining the presence of visible emissions. As a minimum, the observer must be trained and knowledgeable regarding the effects on the visibility of emissions caused by background contrast, position of the sun and amount of ambient lighting, observer position relative to source and sun, and the presence of uncombined water.
  - c. The cyclone stack shall be observed for a minimum cumulative duration of 15 seconds during the survey.
  - d. Any visible emissions other than uncombined water shall be recorded as a positive reading associated with the emission point.

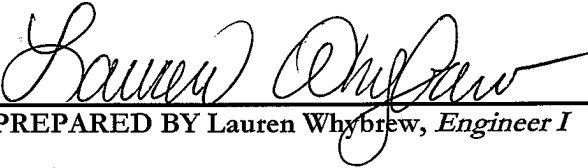
[*Authority: ORCAA Regulation 6.1.4(a)(2)*]


4. **Operation and Maintenance:** The following shall be completed at the specified time interval. At any point, ORCAA may require I5 Design to create and implement an Operations & Maintenance (O&M) Plan if it is deemed necessary to ensure that the cyclone is kept in good operating condition and repair.
  - a. The hopper area shall be kept clean to minimize emissions to the ambient atmosphere. At a minimum, this can include regularly unloading the hopper, sweeping the area, and adequately disposal of the waste.
  - b. Weekly self-inspections shall be conducted to ensure that the doors/seals on the cyclone and surrounding ductwork are fully sealed.

[*Authority: ORCAA 4.3(g), ORCAA 8.8*]

5. **Recordkeeping:** The following records shall be maintained on site for at least five years:
- a. A copy of ORCAA's Final Determination and Approval Order;
  - b. The opacity survey results required in Condition # 3; and,
  - c. A record of equipment repair and parts replacement.

[Authority: ORCAA 8.11]

 1/4/18  
PREPARED BY Lauren Whybrew, *Engineer I* Date

 1/5/18  
REVIEWED BY Mark V. Goodin, PE Date



# ATTACHMENTS

- ATTACHMENT 1: AIR REGULATIONS AND STANDARDS
- ATTACHMENT 2: LIST OF ABBREVIATIONS AND ACRONYMS
- ATTACHMENT 3: EMISSION CALCULATIONS
- ATTACHMENT 4: SEPA DOCUMENTS

# Attachment 1

## Applicable Regulations and Standards

**TABLE A1: Summary of Applicable Regulations and standards**

TITLE	CITATION	APPLICABLE REQUIRMENT DESCRIPTION	REFERENCE METHOD
Annual Registration	WAC 173-400-101 ORCAA 4.1	Requires annual registration and reporting of annual emissions. Registration Category: RC5	None
Annual Registration Fees	WAC 173-400-104 ORCAA 3.1	Provides local air pollution agencies the authority to assess an annual fee to registered air pollutant sources.	None
New Source Review (NSR) Requirements	WAC 173-400-110; WAC 173-400-114; ORCAA 6	Approval by ORCAA through a NOC application is required prior to establishing or constructing any new source of emissions, or modifying an existing source. This includes removal of a control device or substantial modification of an existing control device.	None
Circumvention	Title 40 CFR 63, §63.4(b) WAC 173-400-040(8); ORCAA 7.5 (local only);	Prohibits the installation or use of any device or use of any method to conceal or mask an emission of an air contaminant that would otherwise violate any requirement pursuant to Chapter 70.94 RCW, ORCAA's Regulations or Title 40 CFR Part 63.	None
Control Equipment Maintenance and Repair	ORCAA 8.8 (local only)	Requires all air contaminant sources to keep any process and/or air pollution control equipment in good operation and repair.	None
Demolition and Renovation	Title 40 CFR 61, §61.145(b); ORCAA 6.3 (local only)	The permittee shall conduct all renovation, demolition and asbestos projects in accordance with applicable asbestos control standards and requirements in ORCAA Rule 6.3, Title 40 CFR § 61.145 and Title 40 CFR §61.150.	None
Emission Inventory	WAC 173-400-105(1); ORCAA 4.3	Requires maintenance of records relating to air pollutant emissions and submittal of an annual emissions inventory if required.	None
Emissions Detrimental to Persons or Property	WAC 173-400-040(6); ORCAA 7.6 (local only)	Prohibits the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	None
Excess Emissions	WAC 173-400-107; ORCAA 8.7	Requires source operators to demonstrate that excess emissions were unavoidable in order to obtain relief in an enforcement action.	None
Fallout Prohibition	WAC 173-400-040(3); ORCAA 8.3(e) (state/local only)	Prohibits particulate emissions from any source to be deposited, beyond the property under direct control of the owner or operator of the source, in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material was deposited.	None
Fugitive Dust Control	WAC 173-400-040(9)(a); ORCAA 8.3(c) (local only)	Reasonable and/or appropriate precautions shall be taken to prevent fugitive particulate material from becoming airborne; 1. When handling, loading, unloading, transporting, or storing particulate material; or, 2. When constructing, altering, repairing or demolishing a building, or its appurtenance, or a road; or, 3. From an untreated open area. For the purpose of this requirement, fugitive particulate means particulate material that is generated incidental to an operation, process or procedure and is emitted into the open air from points other than an opening designed for emissions such as a stack or vent.	None
Fugitive Emissions Control	WAC 173-400-040(4)(a)	The owner or operator of any emission unit engaging in materials handling, construction, demolition or any other operation that is a source of fugitive emissions shall take reasonable precautions to prevent release of air contaminants from the operation.	None

TITLE	CITATION	APPLICABLE REQUIREMENT DESCRIPTION	REFERENCE METHOD
Maximum Visual Emissions	WAC 173-400-040(2); ORCAA 8.2 (local only)	<p>(a) In equipment or facilities, including boilers using hogged fuel, regardless of their date of installation, no person shall cause or allow the emission to the outdoor atmosphere, for more than three minutes in any one-hour, of a gas stream containing air contaminants that exhibit greater than 20% opacity.</p> <p>(b) Observations shall be made by trained and certified observers or by LIDAR instrumentation.</p> <p>(c) The exceptions to the opacity standard stated in (a) above are as follows:</p> <ul style="list-style-type: none"> <li>i. Emissions occurring due to soot blowing or grate cleaning may be greater than 20% opacity; providing the operator can demonstrate that soot blowing or grate cleaning will not exceed a total of 15 minutes in any consecutive 8 hours. This practice, except for testing and troubleshooting, is to be scheduled for the same approximate times each day and ORCAA shall be advised of the schedule.</li> <li>ii. When the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed 20%.</li> </ul>	EPA Reference Method 9 of 40 CFR Part 60, Appendix A.
Process Unit Emission Standards	WAC 173-400-060; ORCAA 8.3(a) (local only)	No person shall cause or allow the emission of particulate material from any general process operation in excess of 0.23 grams per dry cubic meter at standard conditions (0.1 grain/dscf) of exhaust gas.	EPA Method 5 found in Title 40 CFR Part 60, Appendix A
Record Keeping and Reporting	ORCAA 8.11 (local only)	<p>Requires the following:</p> <ol style="list-style-type: none"> <li>1. Maintenance of records on the nature and amounts of emissions and other related information as deemed necessary by ORCAA;</li> <li>2. Reporting of emissions to ORCAA upon request.</li> </ol>	None

# **Attachment 2**

## **Abbreviations and Acronyms**

## ABBREVIATIONS AND ACRONYMS

AOP	Air Operating Permit
AP-42	Compilation of Emission Factors, AP-42, Fifth Edition, Volume I, Stationary Point and Area Sources – Published by EPA
ASIL	Acceptable Source Impact Level pursuant to Chapter 173-460 WAC
BACT	Best Available Control Technology
CAM	Compliance assurance monitoring (Title 40 CFR 64)
CFR	Code of Federal Regulations
CO	Carbon monoxide
EPA	United States Environmental Protection Agency
FCAA	Federal Clean Air Act
HAP	Hazardous air pollutant listed pursuant to Section 112 FCAA
MACT	Maximum Achievable Control Technology
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOC	Notice of Construction application
NO <sub>x</sub>	Nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
ORCAA	Olympic Region Clean Air Agency
PM	Total particulate matter (includes both filterable particulate matter measured by EPA Method 5 and condensable particulate matter measured by EPA Method 202)
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (includes both filterable particulate matter measured by EPA Method 201 or 201A and condensable particulate matter measured by EPA Method 202)
PM <sub>2.5</sub>	Particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers (includes both filterable particulate matter measured by EPA Method 201 or 201A and condensable particulate matter measured by EPA Method 202)
PSD	Prevention of Significant Deterioration
PTE	Definition pursuant to WAC 173-400-030(69)
RACT	Reasonably Available Control Technology

RBLC	RACT/BACT/LEAR Clearinghouse
RCW	Revised Code of Washington
SO <sub>2</sub>	Sulfur Dioxide
SQER	Small Quantity Emission Rate listed in Chapter 173-460 WAC
TAP	Toxic Air Pollutant pursuant to Chapter 173-460 WAC
T-BACT	Best Available Control Technology for toxic air pollutants
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
WCAA	Washington Clean Air Act

## UNITS OF MEASUREMENT

'	minute (measurement of angle)
"	second (measurement of angle)
°	degree
acfm	actual cubic feet per minute
atm	atmosphere
Bhp	Brake horse power
Btu	British thermal units
cfm	cubic feet per minute
dscf	dry standard cubic feet
dscfm	dry standard cubic feet per minute
°F	degree Fahrenheit
ft	feet
g	grams
g/s	grams per second
gal	gallon
gr	grain
hp	horsepower
hr	hour
in	inches
K	degree Kelvin
kg	kilograms
km	kilometers
kW	kilowatt
L	liter
lb	pounds
µg	micrograms
m	meters
M	thousand
Mbf	thousand board feet
min	minute
MM	million
MMbf	million board feet
MMBtu	million British thermal units
mmHg	millimeters of mercury
mph	miles per hour
MW	megawatts
ppb	parts per billion
ppm	parts per million
ppmvd	parts per million, dry volume
psi	pounds per square inch
s	second
scfm	standard cubic feet per minute
tpy	tons per year

# **Attachment 3**

## **Emissions Calculations**

## Emissions

FACTORS: gr/SCF	Sander dust		Other Cyclones	
	PM	PM-10	PM	PM-10
	0.055	(0.5*PM)	0.03	(0.4*PM)

Cyclone ID#	Hr/Dy runs	Dy/Wk	Wk/Yr	Hr/Yr	CFM	Material	PM	PM-10	PM 2.5	Comment
1	8	5	52	2080	4200	Other	1.1	0.4	0.2	CNC Router and Edgebander Cyclone

	PM	PM-10	PM 2.5
TOTAL:	1.1	0.4	0.2

- PM factor:  
e. g. CNC Router Cyclone,  $PM = (0.03 \text{ gr/ft}^3)(4200 \text{ ft}^3/\text{min})(1 \text{ lb}/7000 \text{ gr})(60 \text{ min/hr})(1\text{T}/2000 \text{ lb})(2080 \text{ hr operate}) = 1.12 \text{ T PM}$   
PM-10 factor cal. from ratio of P/PM-10 in EPA factor book 450/4-90-003 p. 144 , then applied to factor in AP-42 p. 10.4-2  
PM-10 is 40% of PM. Ratio also in the FIRE factors v. 6.22 PM-10 = 40% PM, factor units: lb PM SCFM Yr



# Attachment 4

## SEPA Documents

**DETERMINATION OF NONSIGNIFICANCE**

**Description of Proposal:** The construction and development of 8,000 square foot building to house a graphics design office and the manufacturing of commercial signs and awnings.

**Proponent:** I-5 Signs, Inc.

**Location of Proposal:** The subject property is addressed as 8735 Commerce Place. The site is located on the south side of Commerce Street and is legally described as Parcel C of BLA 990002LA, in Section 1, Township 18N, Range 1W, W.M., Lacey, Thurston County, Washington.

**Lead Agency:** City of Lacey Community Development Department

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

There is no comment period for this DNS.

This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 14 days. Comments must be submitted by [Click here and type date]

The comment period, pursuant to WAC 197-11-355, was combined with the Notice of Application comment period, using the Optional DNS Process. The comment period closed on August 30, 2000.

**Assigned Staff Person:** [Click here and type name and title]

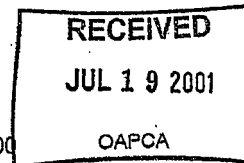
**Responsible Official:** Lacey Environmental Review Committee

**Address:** 420 College Street SE, P.O. Box 3400, Lacey, WA 98509-3400

**Phone:** (360) 491-5642 **Fax:** (360) 438-2669

**Date:** August 30, 2000

**Signature:** 



**NOTE:** Pursuant to RCW 43.21.C.075 and Lacey City Code 14.24.170(A), a project denial based upon environmental information, and a conditioned or mitigated Determination of Nonsignificance (DNS) may be appealed by any agency or aggrieved person. Appeals are filed either with the Community Development Department when there is also an underlying governmental action or with the City Council if there is no underlying governmental action. Appeals to the City Council must be filed within ten (10) days of the issuance of the written decision (refer to the Lacey City Code for time periods on appeals filed with the Community Development Department).

cc: Department of Ecology

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 - Fax 360-491-6308

## FORM 1- NOTICE OF CONSTRUCTION

TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE

**Form 1 Instructions:**

1. Please complete all the fields below. **This NOC application is considered incomplete until signed.**
2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records ([www.orcaa.org/forms](http://www.orcaa.org/forms)).
3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

Business Name: <b>IS DESIGN BUILD INC</b>		<b>For ORCAA use only</b>	
Mailing Address: <b>98516</b> <b>8751 COMMERCE PLACE DR NE Lacey WA</b>		File No: <b>683</b>	County No: <b>67</b>
Physical Address of Project or New Source: <b>''</b>		Source No: <b>29</b>	Application No: <b>17NOC1244</b>
Billing Address: <b>''</b>		<b>RECEIVED</b>	
Are you currently registered with ORCAA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<b>AUG 21 2017</b>	
Project/ Equipment to be installed/established:			
Previous business name (if any): <b>IS DESIGN &amp; MANUFACTURE</b>			
<p>This project must meet the requirements of the State Environmental Policy Act (SEPA) and applicable building and fire codes before ORCAA can issue final approval. Complete one of the following options.</p> <p><input type="checkbox"/> SEPA was satisfied by _____ (government agency) on ___/___/___ (date). A copy of the final determination and the environmental checklist is enclosed.</p> <p><input type="checkbox"/> SEPA is pending approval by _____ (government agency). A copy of the environmental checklist is enclosed and a copy of the final determination will be forwarded to ORCAA when issued.</p> <p><input type="checkbox"/> ORCAA is the only government agency requiring a permit. A completed environmental checklist or documentation that the project or new source is/will be in compliance with local building and fire codes is enclosed.</p> <p><input type="checkbox"/> This project is exempt from SEPA per _____ (WAC citation).</p>			
Name of Owner of Business: <b>DAN SCAMMAN</b>		Agency Use Only	
Title: <b>OWNER</b>		<b>CONDITIONALLY APPROVED FOR CONSTRUCTION ONLY IN ACCORDANCE WITH RCW 70.94, WAC 173-400 ORCAA REGULATIONS (SEE ATTACHED ADDENDUM FOR CONDITIONS OF APPROVAL)</b>  <b>1/5/2018</b>  <b>DATE</b> <b>Sharon Lincee</b>	
Email: <b>DANS@ISDESIGN.COM</b>	Phone: <b>360-480-8390</b>		
Application Contact Name (if different than owner):			
Title: <b>''</b>	Phone: <b>''</b>		
Email: <b>''</b>	Phone: <b>''</b>		
Facility Operations Contact Name (if different than owner):		ORCAA	
Title: <b>''</b>			
Email: <b>''</b>	Phone: <b>''</b>		
I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.			
Signature of Owner:		Date: <b>8/17/17</b>	