



## YAKIMA REGIONAL CLEAN AIR AGENCY

Order of Approval Permit No. NSRP-20-IP-16

### **New Source Review (NSR) Order of Approval for International Paper for Four Gas Fired Heaters Rated at 1,920,000 BTU/Hr Each**

**IN THE MATTER OF** approving a project which establishes a new air contaminant source at International Paper, in Yakima, WA. THIS ORDER OF APPROVAL IS HEREBY ISSUED TO:

**Applicant/Permittee:** International Paper  
*Cardboard Box Plant*

**Located at:** 600 W Ahtanum Rd.  
Yakima, WA. 98903

**Contact:** International Paper  
Attn: Martin Taylor  
600W Ahtanum Rd.  
Yakima, WA 98903  
(509) 576-3130

IN COMPLIANCE WITH THE PROVISIONS OF THE STATE OF WASHINGTON CLEAN AIR ACT (Revised Code of Washington (RCW)) CHAPTER 70.94.152, 70.94.141, WASHINGTON ADMINISTRATIVE CODE (WAC) 173-400-110 and 173-460-040:

**ISSUE DATE:** November 10, 2016

THIS ORDER OF APPROVAL PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

**Construction and Installation of the equipment must be conducted in compliance with all data and specifications submitted with the New Source Review (NSR) application under which this Order of Approval is issued unless otherwise specified herein. The conditions and limitations of this NSR Order of Approval are attached as follows:**



## **1.0 DESCRIPTION OF THE SOURCE**

- 1.1 International Paper, hereafter referred to as the Permittee, the Facility or the Source is the owner and operator of a corrugated packaging plant, located at 600 W Ahtanum Rd., Yakima, WA. The permittee is proposing to install four gas fired heaters rated at a rate of 1,920,000 Btu/hr each.
- 1.2 Installation of the gas fired heaters is considered new sources of air contaminants requiring a NSR pursuant to the Revised Code of Washington (RCW) 70.94.152 and the WAC 173-400-110 and WAC 173-460-040.
- 1.3 Specifications for the units are listed in Table 1 below. Locations of new heating units, layout of the installed units at the Facility, and the drawing of gas fired heaters specifications are shown in Figure 1, 2, and 3, respectively. These specifications, map, layout and the drawing specifications shall be part of this Order of Approval (Order/ Permit).
- 1.4 The City of Union Gap exempted this project from the State Environmental Policy Act (SEPA) review process as signed by the City dated October 10, 2016 (NSR application).
- 1.5 Air emissions from these gas fired heaters operations are in the form of small Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>), Carbon Monoxide (CO), Oxides of Nitrogen and Sulfur, (NO<sub>x</sub>) and (SO<sub>x</sub>), respectively, Volatile Organic Compounds (VOCs) some of which are Hazardous Air Pollutants (HAPs) and/or Toxic Air Pollutants (TAPs) in accordance with the Federal Clean Air Act (FCAA) or Washington Administrative Code (WAC), respectively.

## **2.0 DETERMINATIONS**

In relation to the above installation, YRCAA determines that the Facility shall comply with the Federal, State and Local regulations and laws including but not limited to the following determination:

- 2.1 This source is located in an area that is in attainment with all criteria pollutants and is under maintenance plan for PM<sub>10</sub>;
- 2.2 The source is subject to the New Source Review Requirements of WAC 173-400-110 and WAC 173-460-040;



- 2.3 The Facility is subject to WAC 173-400-099 – Registration Program and YRCAA Regulation 1; and
- 2.4 This Facility is a Synthetic Minor Source. The approval conditions shall be part of the Title V in the event that the Facility becomes a title V source.

**THEREFORE**, it is hereby ordered that the project as described above, in the NSR application, and in detailed plans, specifications and other information submitted in reference thereto, is **APPROVED** for operation, **PROVIDED** the specification submitted with the application and the following conditions are met:

### **3.0 OPERATIONAL APPROVAL CONDITIONS**

- 3.1 This Order is for the four gas fired heaters which are located at 600 W Ahtanum Rd., Yakima, WA. The specifications with the layout plan for the four gas fired heaters were submitted with the NSR application to YRCAA and specified in Table 1 of this Order, in which all approval conditions must be complied with.
- 3.2 Pursuant to RCW 70.94.152, WAC 173-400-113 and WAC 173-460-060, Best Available Control Technology (BACT) and Toxic -BACT (T-BACT), respectively are required to control all air emissions from any proposed new facility or modified source. YRCAA finds BACT to be satisfied as follows:
  - 3.2.1 Only natural gas must be use as a source of fuel for the heaters;
  - 3.2.2 The gas fired heaters must be operated as per manufacturer's specifications and certification;
  - 3.2.3 An operation and maintenance (O&M) plan for the gas fired heaters shall be developed as specified in this Order and based on the manufacturer recommended standards;
  - 3.2.3 TAPs air emissions shall always be below the Acceptable Source Impact Levels (ASIL); and
  - 3.2.4 Air emissions from the Facility shall meet the ASIL of WAC 173-460 and the National Ambient Air Standards (NAAQs) of 40 CFR Part 50 as specified in this Order.



- 3.3 The Permittee must develop a site-specific O&M plan for the gas fired heaters. If an O&M is not developed yet, a plan must be completed within 60 days of the issuance of this Order and shall include, but not be limited to the following:
- 3.3.1 The required scheduled lubrication of all moving parts of heaters as specified by the equipment manufacturer; and
- 3.3.2 The scheduled inspection for the space heater parts for wear and tear or replacement, as specified by the equipment manufacturer.
- 3.4 The O&M plan and all records including this Order must be maintained at the Facility's site and be accessible when requested by the YRCAA Air Pollution Control Officer (APCO) or his designated staff during inspections or upon request when deemed necessary in accordance with the rules and regulations.
- 3.5 Within 60 days from the date of issuance of this Order, the Permittee shall submit a letter notifying YRCAA that the O&M plan is completed and in place. If the Permittee needs to make any future addition, replacement, or modification to the operating procedures, an approval in writing from YRCAA must be issued before such modification takes place. The O&M documents must be updated and implemented to reflect such modification.
- 3.6 This Order authorizes the installation of the following equipment:

**Table 1: Authorized Equipment List**

Unit No.	Unit Type	Manufacturer and Model number	Size Range
1	Four (4) Gas Fired Heaters	Manufacturer: Hartzell Model: A78V-446-P-STFCJ5	1,920,000 BTUH each.

- 3.7 There must be no fallout or any fugitive air emissions from these units beyond the property boundary in a quantity that interferes unreasonably with the use and enjoyment of the property owner upon which the material is deposited or is detrimental to the health, safety or welfare of any person or causes damage to any property or business.



#### **4.0 GENERAL APPROVAL CONDITIONS**

- 4.1 The installation of these four gas fired heaters shall be in compliance with all applicable Federal, State, and Local laws and regulations, including, but not limited to, RCW 70.94 (Washington Clean Air Act), WAC 173-400 (General Regulations for Air Pollution Sources), WAC 173-460 (Controls for New Sources of Toxic Air Pollutants) and YRCAA Regulation 1.
- 4.2 All plans, specifications, other information and any further authorizations or approvals or denials in relation to this project, shall be incorporated herein and made a part of YRCAA file.
- 4.3 Except as specified in this Order, any new or additional construction, modifications or alterations not covered in this review process which will affect air emissions from any equipment in this Facility are subject to a NSR permitting process before it takes place as required by RCW 70.94.152 and YRCAA Regulation 1.
- 4.4 Nothing in this approval shall be construed as preventing compliance with any requirement(s) of law including those imposed pursuant to the Federal and State Clean Air Acts, and rules and regulations thereunder. Any violation(s) of such rules and regulations are subject to enforcement and penalty action in accordance with RCW 70.94.430 and YRCAA Regulation 1, Article 5.
- 4.5 Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:
  - 4.5.1 Violation of any terms or conditions of this authorization; or
  - 4.5.2 Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.
- 4.6 The provisions of this authorization are severable and, if any provision or application of any provision of this authorization to any circumstance is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.



- 4.7 Applicable laws and regulations may be superseded or revised without notice. It is the Permittee's responsibility to stay current with rules and regulations governing their business and therefore is expected to comply with all new rules and regulations immediately upon their effective date. Rules and regulation updates will be incorporated into existing Orders or upon renewal or modification of said Permits.
- 4.8 All air emissions from this Facility shall be in compliance with air emission standards at all times. It is the responsibility of the owner to make sure that air emissions are within all known rules and regulations.
- 4.9 The APCO or his designated official shall be allowed to enter the Facility at reasonable times to inspect for compliance with applicable regulations and the conditions of this Order.
- 4.10 The YRCAA staff shall be allowed to inspect the Facility site at reasonable times to inspect equipment and/or records specific to the control, recovery, or release of contaminants into the atmosphere, in accordance with RCW 70.94.200 and YRCAA Regulation 1.
- 4.11 Deviations from these conditions are violations subject to penalties in accordance with RCW 70.94.430 and 431, WAC 173-400-230 and YRCAA Regulation 1, Article 5, Section 5.02.

## **5.0 EMISSION LIMITS**

- 5.1 The annual amount of PMs, VOCs, HAP and TAP emissions from the units were calculated, and the allowable actual total emissions shall not exceed the limits as shown in Appendix A of this Order.
- 5.2 Opacity as measured by 40 CFR Part 60, Appendix A, Method 9, from the gas fired heaters discharge points must not exceed zero percent (0%) average for three consecutive minutes in any given one hour period except during periods of start-up, shut down or malfunction as defined in WAC 173-400-081.





- 5.3 If opacity is greater than the opacity limit is observed, the Permittee shall immediately stop the gas fired heater and take corrective action as directed in the O&M plan until visible emissions are below the respective opacity limit. Corrective actions may include the following:
- 5.3.1 Verify and certify that the affected equipment is performing according to its design functions within the acceptable design parameters and is being operated according to O&M procedures. Therefore, it must be checked against any operational conditions that have resulted in compliance in the past. If the equipment is not performing according to design and O&M procedures, the Permittee must take corrective action within 48 hours to correct the problem; or
  - 5.3.2 Conduct an opacity evaluation by a certified opacity reader in accordance with 40 CFR 60, Method 9 within 48 hours to verify compliance with the opacity limit. If the Permittee has no certified opacity reader, the Permittee shall contact YRCAA immediately and will be advised accordingly.
- 5.4 If the opacity continues to be above 0% and the corrective actions are not sufficient YRCAA shall be informed and the opacity limit may be changed.
- 5.5 Source test may be required at any time or every year pursuant to WAC 173-400-105. If and when the source test will be required the agency will determine the source test protocol and the EPA approved methods at that time.
- 6.0 MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS**
- 6.1 The Permittee shall keep all records including this Order on site. Records shall include, at minimum, the monthly number of hours of operation for the gas fired heaters, annual fuel consumption, and the O&M items performed. Forms for record keeping must be designed by the Permittee and shall include the date and time of maintenance performed and the operator's name.



- 6.2 To demonstrate compliance with the opacity conditions, an initial opacity reading shall be conducted within one month of the start of operation. Visual opacity shall be conducted once every six months of operation thereafter as indicate in this Order. Initial opacity reading shall be conducted using 40 CFR Part 60, Appendix A, Method 9 by a person possessing a valid Method 9 Visible Emission Evaluation (VEE) certification. The frequency of compliance test may be increased if any inspection of the source indicates non-compliance with permit conditions or are technically unsatisfactory and a source test may be required.
- 6.3 The required records, logs and a copy of the O&M plan for this Facility shall be kept on site and shall always be readily available, organized and accessible when requested by YRCAA personnel or during an inspection. The O&M plan shall be updated to reflect any changes in operating procedures and such changes shall be routinely implemented.
- 6.4 Records shall be maintained and kept at the site for any of the previous three years from any of current date, and be made available to the APCO of the YRCAA or his designated staff during inspections or upon request.
- 6.5 Any application form, report, or compliance certification, monthly record and the annual fuel consumption report submitted to YRCAA pursuant to this Order must be signed by a responsible official.
- 6.6 Total emissions for criteria pollutants, number of hours of operation, HAPs, TAPs and VOCs must be calculated and reported to YRCAA on an annual basis as specified in the annual registration provided by YRCAA to the Facility.
- 6.7 This Order and its conditions shall remain in effect in the event of any change in control or ownership of the Facility. In the event of any such change in control or ownership of the subject Facility, the Permittee shall notify the succeeding owner of the Order and conditions and shall notify the YRCAA of the change in control or ownership by filing an "Ownership or Name Change" form within fifteen (15) days of that change. The form can be obtained or requested from YRCAA's office.
- 6.8 This Order is invalid without paying the complete appropriate/required fees to YRCAA, pursuant to RCW 70.94.152.





Any person feeling aggrieved by this NSR Order of Approval may obtain review thereof by application, within thirty (30) days of receipt of this NSR order to the Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA, 98504-0903. Concurrently, a copy of the application must be sent to the YRCAA, 329 N 1st St., Yakima, WA 98901. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

**DATED at Yakima, Washington this 10<sup>th</sup> day of November, 2016.**

PREPARED BY:

A handwritten signature in blue ink, reading "Ketsiri Leelasakultum", positioned above a horizontal line.

Ketsiri Leelasakultum  
Air Quality Engineer  
Yakima Regional Clean Air Agency

APPROVED BY:

A handwritten signature in blue ink, reading "Hasan M. Tahat", positioned above a horizontal line.

Hasan M. Tahat, Ph.D.  
Engineering and Planning Division Supervisor  
Yakima Regional Clean Air Agency  
for

Gary W. Pruitt  
Air pollution Control Officer  
Yakima Regional Clean Air Agency

REVIEWED BY:

A handwritten signature in blue ink, reading "Norman Hepner", positioned above a horizontal line.

Norman Hepner, P.E.,  
Nth Degree Engineering  
Solutions



## Appendix A (page 10 of 11)

NSR-2014-16  
International Paper  
Natural Gas Fired Heaters

Four Heaters, NC @ 1.07MMBtu/hr

AREA 55AALL source

\*1000 MMBtu/MMscf from Reg. Section 1.4 (July 1998)

7500	lb/yr
7680000.0	MMBtu/yr
67.28	MMscf/yr
7680	Max scf/hr
67.28	Max MMBtu/yr
7.83	Max MMBtu/hr

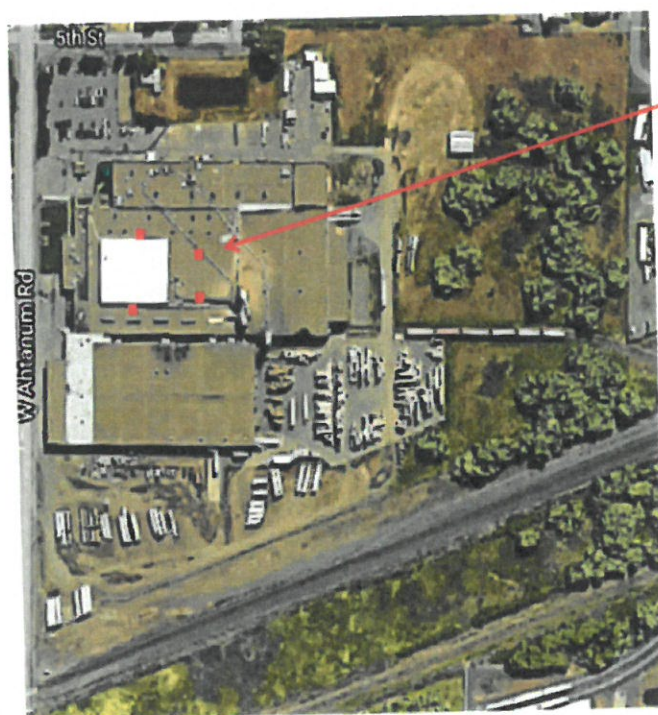
Model #: A78V-446-P-STFC5

\*\*\*\*A4.2, Table 1 &amp; 1.1, 1 &amp; 2, model Heaters

Criteria Pollutant	Emission Factor (lb/MMscf)	ACTUAL Emissions		POTENTIAL Emissions	
		lb/yr	tpy	lb/yr	tpy
PM	7.6	511,328	0.256	511,304	0.256
CO	84	5651,520	2.826	5651,251	2.826
CO <sub>2</sub>	120000	8073600,000	4036.800	22436,667	15,698
NO <sub>x</sub>	100	6728,000	3.364	6727,680	3.364
N <sub>2</sub> O	2.2	148,016	0.074	148,009	0.074
SO <sub>2</sub>	0.6	40,368	0.020	40,366	0.020
TOC	11	740,080	0.370	740,045	0.370
VOC	5.5	370,040	0.185	370,022	0.185
Methane	2.3	154,744	0.077	154,737	0.077
Pb	0.0005	0.034	0.000	0.034	0.000
Formaldehyde	0.075	0.1625	0.0001	0.1625	0.0001
Total HAPs & TAPs (formaldehyde not included)	calculations	756,942	0.378	756,906	0.378

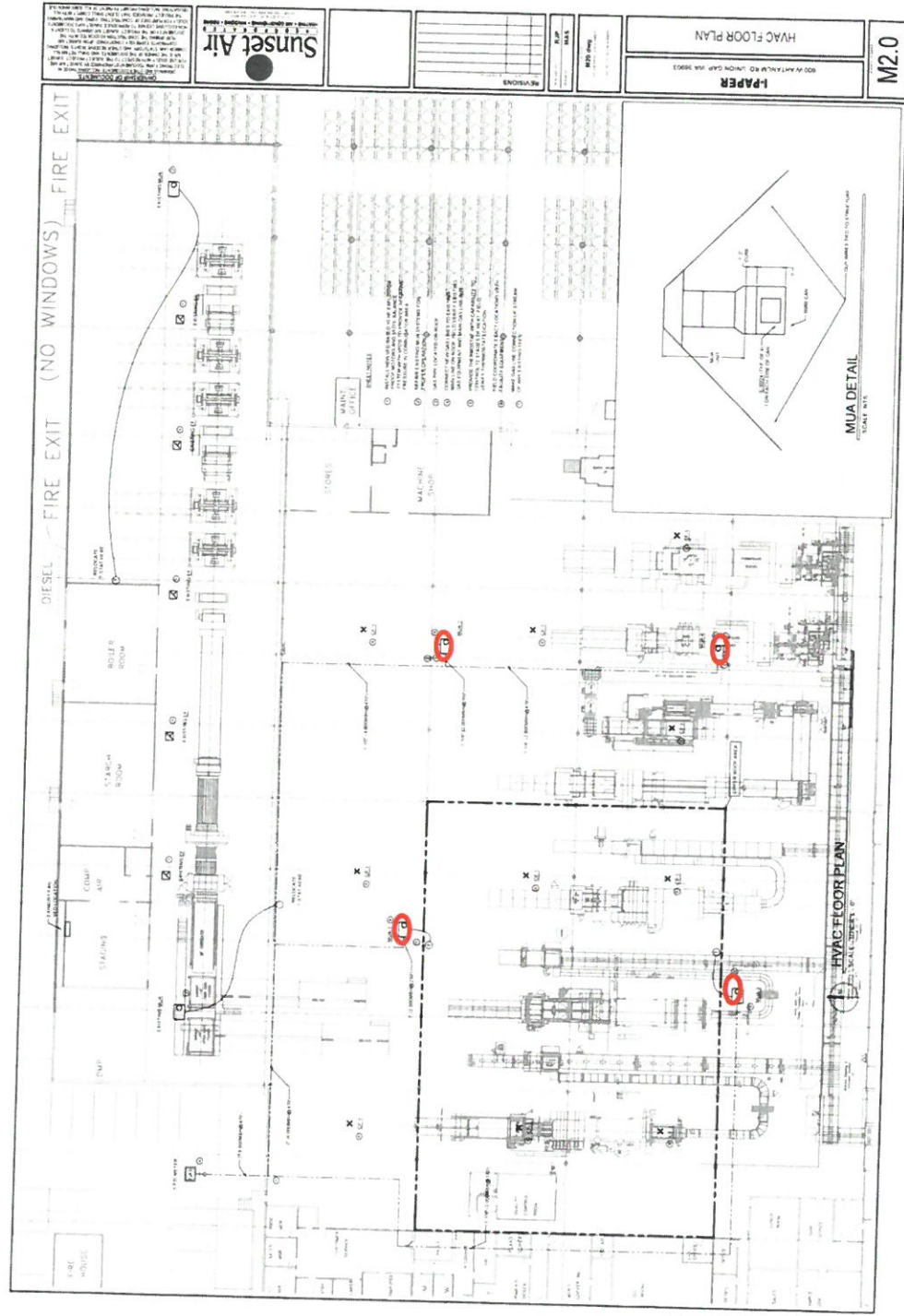
Compound	CAS No.	TAP (Yr/No)	Emission Factor (lb/MMscf)		Actual Emissions		Potential Emissions	
			lb/yr	tpy	lb/yr	tpy	lb/yr	tpy
2-Methylnaphthalene	91-57-6	NO	2,402-05		1,616-01	0.797	1,616-01	0.797
3-Methylchloranthrene	56-49-5	YES	1,802-06		6,092-08	3.364-07	1,402-08	0.695-08
7,12-Dimethylbenzanthracene	57-97-6	YES	1,692-05		1,212-04	0.598-07	1,212-04	0.598-07
7,12-Dimethylbenzanthracene	57-97-6	NO	1,692-05		5,382-07	2.598-06	5,382-07	2.598-06
Acenaphthylene	83-32-9	NO	1,802-06		1,092-03	0.538-07	1,252-07	0.605-08
Acenaphthylene	203-96-8	NO	1,802-06		1,212-04	0.598-07	1,402-08	0.695-08
Anthracene	120-12-7	NO	2,402-06		6,092-08	3.364-07	1,402-08	0.695-08
Artenic	7440-38-2	YES	2,402-06		1,616-01	0.797	1,616-01	0.797
Barium	7440-39-3	NO	4,002-04		6,732-06	3.242-05	6,732-06	3.242-05
Benz(a)anthracene	56-55-3	YES	4,002-04		1,392-02	0.666-07	1,392-02	0.666-07
Benzene	71-43-2	YES	2,102-03		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
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Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-14-2	YES	1,802-06		1,212-04	0.598-07	1,212-04	0.598-07
Benzofluoranthene	205-99-2	YES	1,802-06		4,092-08	2.242-07	1,642-05	0.797-05
Benzofluoranthene	193-							



Locations of new heating units. Nearest unit to property line: 165' to Ahtanum Rd.

**Figure 1.** Facility site and location of the four gas fired heaters





**Figure 2.** The layout of the installed units relative to the floor plan, the location of gas fired heaters is circled in red color



ACCESSORIES	SPECIFICATIONS
1. <input checked="" type="checkbox"/> DISCONNECT SWITCH <input checked="" type="checkbox"/> TYPE <input checked="" type="checkbox"/> MOUNTED <input checked="" type="checkbox"/> WIRED 2. <input checked="" type="checkbox"/> FILTERS <input checked="" type="checkbox"/> PERMANENT <input checked="" type="checkbox"/> THROW-AWAY 3. <input checked="" type="checkbox"/> OPTIONAL HIGH WIND LOADINGS 4. <input checked="" type="checkbox"/> ROOF ADAPTER BASE FLAT: _____ SLOPED: _____ PEAKED: <u>80°F.</u> 5. <input checked="" type="checkbox"/> PREFABRICATED ROOF CURB <u>8"</u> HIGH <u>12"</u> HIGH 12" MIN. HEIGHT: _____ OTHER: _____ 6. <input checked="" type="checkbox"/> SPECIAL COATINGS: <u>TARGET</u> <u>EXPORT</u> <u>OTHER</u>	SERIES: 78V INTAKE CONSTRUCTION: <input checked="" type="checkbox"/> GALVANNEAL <input type="checkbox"/> ALUMINUM  <h3 style="text-align: center;">GENERAL NOTES</h3> 1. COATING-UNLESS OTHERWISE SPECIFIED: A. STD GALV. CONSTR. IS PAINTED B. OPT ALUM. CONSTR. IS UNPAINTED 2. CUSTOMER IS TO ASSURE THAT UNIT IS INSTALLED AND SOLIDLY ATTACHED TO ROOF'S STRUCTURE. 3. UNIT STANDARD DESIGN IS FOR WIND LOADINGS UP TO 60 MPH

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FAN SIZE	A	B	C	D	E	F	G	H	J
78V-28	80	19 3/4	28 7/8	42	97 1/4	52 11/16	12 11/16	2 1/2	12
78V-44	96	23 1/4	45	58 1/4	101 1/4	53 3/16	13 3/16	3	18
78V-48	120	28 1/2	49 1/8	64 1/4	107 11/16	54 3/8	14 3/8	4 3/16	34

FAN SIZE	K	L	M	N	P	R	V
78V-28	(12) 20 X 20 X 2	45 1/8	12 GA.	7 GA.	10 GA.	3/16	18 GA.
78V-44	(6) 16 X 20 X 2	54 1/8	12 GA.	7 GA.	10 GA.	3/16	18 GA.
78V-48	(14) 10 X 20 X 2	67 5/8	12 GA.	7 GA.	10 GA.	3/16	18 GA.

Figure 3. Specifications for the gas heaters highlighted with red rectangles