



YAKIMA REGIONAL CLEAN AIR AGENCY

Order of Approval Permit No NSRP-03-KS-15

New Source Review (NSR) Order of Approval for KapStone Container Corporation for the Installation of a New Bobst 8.20 Flexo Folder Gluer to Replace Martin 718 (Flexo 2400) line.

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

Applicant/Permittee: KapStone Container Corporation

Cardboard Box Plant

Responsible Official: Douglas Larson

Located at: 2001 Longfibre Ave,
Yakima, WA 98903

Contact: KapStone Container Corporation
Creighton O Shaul
2001 Longfibre Ave, P.O. Box 9069
Yakima, WA 98903
(509) 494-6913

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

ISSUE DATE: April 30, 2015

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

Construction/Installation/modification 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 (Order/Permit) are attached as follows:

1.0 Description of the Source

- 1.1 KapStone Container Corporation, hereafter referred to as the Permittee, KCC, Facility or Source is the owner and operator of a Cardboard Box Plant, located at 2001 Longfibre Avenue, Yakima, WA. The Permittee is proposing to install a new Flexo folder gluer (Bobst 8.20) and remove the vintage Martin 718 Flexo line (permitted in Order # NOC-12LVF00) to increase Facility production.
- 1.2 The vintage Martin 718 Flexo line will be removed completely from the Facility site.
- 1.3 The Facility is a corrugated containers and miscellaneous paper products manufacturing company. The Flexo (Bobst 8.20) line will be used for printing on blank boxes based on customer's requirement and is equipped with four colors. The Facility is using low-VOC water-based inks for printing. Figure 1 shows the floor plan of the Facility with the location, name and model number of all flexo and rotary die cutters up to date (as of the date of issuance of this Order).
- 1.4 Specifications for the Flexo line are listed in Table 1. The Permittee submitted the specifications for the line with the New Source Review (NSR) application which shall be part of this Order. The City of Yakima exempted this project from the State Environmental Policy Act (SEPA) review process dated January 28, 2015.
- 1.5 Air emissions from this installation are in the form of small particulates (PM₁₀ and PM_{2.5}), Volatile Organic Compounds (VOCs), Toxic Air Pollutants (TAPs) and Hazardous Air Pollutants (HAPs) pursuant to the Federal Clean Air Act (FCAA) or Washington Administrative Code (WAC) 173-460-150 and 160, respectively.

Other Information Relevant to the Imposed Ink limits:

- 1.6 On May 2, 2014, YRCAA issued an Order NSRP-07-KCC-14 to the Permittee for a new rotary die cutter (Sun Automation 625, shown in Figure 1. below). Due to ink usage threshold, YRCAA agreed with the Permittee to change the ink usage limit on the Sun Automation 625 and be reduced to accommodate total ink usage threshold for both lines (Sun automation 625 and this new installation Bobst 8.20). Thus, YRCAA is changing the ink usage limits allowed in Order number NSRP-07-KCC-14 to be changed and superseded by the ink usage limit as specified in this new Order.

2.0 Determinations

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

- 2.1 The source is located in an area that is in attainment with all criteria pollutants and is under maintenance plan for PM₁₀;

- 2.2 The Facility is classified as a Synthetic Minor source;
- 2.3 The source is subject to the New Source Review Requirements of WAC 173-400-110 and WAC 173-460-040;
- 2.4 In addition to limits imposed by this Permit, the Facility is subject to WAC 173-400-075; and
- 2.5 The Facility is subject to WAC 173-400-099 – Registration Program and YRCAA Regulation 1.

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 Operating Approval Conditions

- 3.1 This Order of Approval is for the installation of the Bobst 8.20 Flexo folder gluer line and to change the ink usage limit for the Sun Automation 625 under Order number NSRP-07-KCC-14. The total ink usage limits for both lines are specified in in this Order. These changes are and will ensure compliance with the conditions of this Order. The two lines are located at 2001 Longfibre Ave. in Yakima WA.
- 3.2 The new line will be operated in accordance with the submitted New Source Review (NSR) application to the Yakima Regional Clean Air Agency (YRCAA).
- 3.3 Best Available Control Technology (BACT) shall be satisfied for any proposed new facility or modified air emission source to control air emissions. YRCAA finds BACT to be satisfied as follows:
 - 3.3.1 An Operation and Maintenance (O&M) plan for the unit shall be developed as specified in this Order and the manufacturers recommended standards;
 - 3.3.2 The line unit must be operated as per manufacturer specifications and certification;
 - 3.3.3 If the ink limit and its TAPs content are adhered to as specified in this Order, TAPs air emissions should be below the Acceptable Source Impact Levels (ASIL) and shall always be below the ASIL;
 - 3.3.4 The ink and glue usage are limited in this Order to meets the ASIL of WAC 173-460 and the National Ambient Air Standards (NAAQs) of 40 CFR Part 50 as specified in this Order emission limit section below;



- 3.3.5 The Permittee shall strive for ink and glue containing less HAPs, TAPs and VOCs, whenever possible;
 - 3.3.6 The excess/trims from the Bobst 8.20 flexo folder gluer line shall pass through the existing cyclone (46-S). However, for the fine particulate, BACT will be determined and may be required depending on the outcome of the source test as required in this Order; and
 - 3.3.7 If the Source test results for the cyclone show that the small PM are above the NSR threshold, the Permittee shall submit a NSR and a BACT determination for the PMs control.
- 3.4 The total air emissions from the facility-wide must be calculated on a monthly basis and submitted to YRCAA on an annual basis as indicated in the registration forms. The calculation should be clear and specific for each line in the Facility.
- 3.5 The Permittee must develop a site-specific O&M plan (the O&M Plan shall contain at least of four sections: general information, operation plan (i.e., key operating parameters), maintenance plan and any other additional information) for the new flexo Bobst 8.20 and all lines. If an O&M is not developed yet, a plan must be completed within 90 days of the issuance of this Order and shall include at minimum, but not be limited to the following:
- 3.5.1 Maintenance or change-out of any operations must be logged manually or electronically;
 - 3.5.2 The Log shall be designed by the Permittee and shall contain at least the date, operator name and any specific action taken and why;
 - 3.5.3 The Material and Safety Data Sheet (MSDS) for all chemicals, including ink used must be kept on site and available for inspection; and
 - 3.5.4 The O&M plan must include any affected unit or line with this new installation.
- 3.6 The O&M plan and all records including this Order must be maintained at the Facility's site or accessible place when requested by the YRCAA Air Pollution Control Officer (AOCO) or any of his designated staff during inspections, or upon request, when deemed necessary, in accordance with the rules and regulations.
- 3.7 The Bobst 8.20 flexo folder gluer must be maintained and operated as per manufacturer specification. It shall be the responsibility of the Permittee to check and make sure that the Bobset 8.20 is maintained and operated as per manufacturer specification.
- 3.8 Within 180 days from the issuance of this Order, a source test to verify the fine PM₁₀ and PM_{2.5} emitted by the Bobst 8.2 flexo folder gluer shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 with Method 202 or 201A with 202 front and back half to demonstrate compliance with air emission factors used for this Permit or any

other EPA equivalent approved method. The source test protocol shall be submitted to YRCAA at least 30 days prior to the source test date. Results of the source test must be submitted to the YRCAA within 30 days after the source test date.

- 3.9 The specified above method 40 CFR Part 60, Appendix A, Method 5 with Method 202 or 201A with 202 front and back half may be changed to Method 5 only with YRCAA written approval, provided the Facility agrees that all PM₁₀ or at minimum 80% of the PM₁₀ are considered PM_{2.5}.
- 3.10 Every five years after the first source test date, the Permittee shall conduct a source test for the cyclone for PM₁₀ using 40 CFR Part 60 Appendix A, Method 5. This requirement may change/waived to 10 years with a written approval from YRCAA if no major modification took place at the Facility.
- 3.11 The specified above source test shall be conducted at the outlet for the cyclone (46-S). Given that the cyclone receives all the trim from the rest of units operated at the facility, the results will need to be pro-rated to determine the PM₁₀ and PM_{2.5} emissions attributable to the Bobst 8.20 flexo folder gluer if the test is performed when other units are in operation. The facility may elect to only operate the Bobst 8.20 flexo folder gluer at the time of the source test.
- 3.12 If BACT for PM₁₀ and PM_{2.5} (depending on the source test outcome) is required and the BACT determination results in a baghouse or other pollution control equipment to installed after the cyclone, source testing for the cyclone will be waived, unless deemed necessary.
- 3.13 If the Permittee elect to install a baghouse after the cyclone prior to any source test, the source test will be waived and the Facility will not be required to do a source test within 180 days of issuance date of this Order.
- 3.14 This Order authorizes the installation of the following equipment:

Table 1 Authorized installation equipment list

Unit No.	Unit Type	Manufacturer and Model Number	Capacity
1	New Bobst 8.20 Flexo folder gluer	Bobst 8.20	600,000 MSF /yr

4.0 General Approval Conditions

- 4.1 The Bobset 8.20 flexo equipment line must comply 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 I.
- 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 are subject to a NSR permitting process before it takes place as required by RCW 70.94.152, WAC 173-400-110 and WAC 173-460-040.
- 4.4 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.
- 4.5 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 laws 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.
- 4.6 This Order number NSRP-03-KS-15 may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:
 - 4.6.1 Violation of any terms or conditions of this authorization; or
 - 4.6.2 If this authorization has been obtained by misrepresentation or failure to disclose fully all relevant facts.
- 4.7 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.
- 4.8 There must be no fallout or any fugitive emissions from the unit 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.

- 4.9 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.
- 4.10 The requirements of this Order of Approval apply to the Facility owner and/or operator(s) and any contractor or subcontractor performing any activity authorized under this Order. Any person(s), including contractor(s) and subcontractor(s), not in compliance with the applicable Order of Approval requirements are in violation of State and Local laws and subject to appropriate civil and criminal penalties. The Facility owner and/or operator, and all contractor(s) or subcontractor(s) are liable for the actions and violations of their employee(s). Any violation committed by a contractor or subcontractor shall be considered a violation by the Facility owner and/or operator, and is also a violation by the contractor and/or any subcontractor(s).
- 4.11 The RCW rules and regulations may be superseded or revised without notice. It is the Permittee's responsibility to stay current with, laws, 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 Regulations updates will be incorporated into existing permits or upon renewal of said permits.

5.0 Emission Limits

- 5.1 The Permittee shall not exceed the allowable emission limits shown in Attachment A. The total emissions from the new Bobst 8.20 Flexo gluer and the Sun Automation 625 with Order number NSRP-07-KCC-14 shall not exceed 1.4 lbs/day of acrylic acid, 41 lbs/day of propylene glycol and 5.9 lbs/day of styrene.
- 5.2 The total emissions from the new Bobst 8.2 Flexo gluer shall not exceed 1.31 lbs/day of vinyl acetate.
- 5.3 If chemical composition changed from what was submitted with this NSR application (higher acrylic acid, propylene glycol, styrene or vinyl acetate), the Permittee must notify YRCAA and have a written approval from YRCAA prior to any changes.
- 5.4 The total ink usage from these two lines may increase from what is shown in attachment A provided that the HAPs/TAPs remains below the thresholds.
- 5.5 In addition, to the limits imposed by this Order, the Permittee shall also comply with all applicable general standards for maximum air emissions as specified in WAC 173-400-040, WAC 173-400-075 and WAC 173-460.

- 5.6 The Permittee must conduct visible emission inspections of the cyclone and the Bobst 8.20 flexo folder gluer at least once a month. Opacity as measured by the applicable method pursuant to 40CFR Part 60, Appendix A, Method 9 or Method 22 should not exceed a ten percent (10%) and zero percent (0%) average for the cyclone and the Bobst 8.20 flexo folder gluer, respectively. If the opacity is greater than the allowable limit the Permittee shall immediately stop the equipment in question and take corrective actions as the O&M plan until visible emissions are below the respective opacity limit. Visible inspections are to be performed while the Facility is in operation during daylight hours. If during a monthly visible emissions inspection, visible emissions other than combined water are greater than the allowable limit, the Permittee must as soon as practicable but within 24 hours of the initial observation do the following:
- 5.6.1 Take corrective action, which may include shutting down the unit or activity until it can be repaired, and until there are no visible emissions (or until the unit or activity is in compliance with all applicable opacity limitations in this Order using the reference test method); or
- 5.6.2 Alternatively, conduct opacity reading using 40CFR Part 60, Appendix A, Method 9 or Method 22 whichever is applicable at the point of observation within 24 hours. All observations using the opacity reference test method must be kept on-site and made available to YRCAA staff during inspection or upon request. If opacity is greater than the allowable limit, unit must be shut down and checked. Units shall not operate until the opacity is less than or equal than the allowable limits.
- 5.7 The monthly visible emissions inspection in condition 5.5 above will be relaxed into once every six months period, if and only if, the first six months (from issuance date of this order and operation of Bobst 8.20 flexo folder gluer) will show that emission limit is not exceeded. Each six month period is defined as January through June and July through December.

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 ink usage, the estimated daily ink usage for the Sun Automation 625 and the new Bobst 8.20 flexo unit, the number of operating hours, the monthly and the annual production output of each line and the O&M items performed. Forms for record keeping must be designed by the Permittee and shall include at minimum, the date and time of maintenance performed and the operator's name.
- 6.2 The O&M plan shall be updated to reflect any changes in operating procedures and such changes shall be implemented.
- 6.3 Records shall be maintained and kept at the site for any of the previous five 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.

- 6.4 Any application form, report, or compliance certification, monthly records and the annual consumption report submitted to YRCAA pursuant to this Order must be signed by a responsible official.
- 6.5 Total air emissions for criteria pollutants, number of hours of operation, PMs, HAPs, TAPs and VOCs must be calculated monthly and reported to YRCAA on an annual basis as specified in the annual registration provided by YRCAA to the Facility.
- 6.6 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 Orders 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 from the agency's website or requested from YRCAA's office.
- 6.7 This Order is invalid without paying the complete appropriate/required cost to YRCAA, pursuant to RCW 70.94.152.

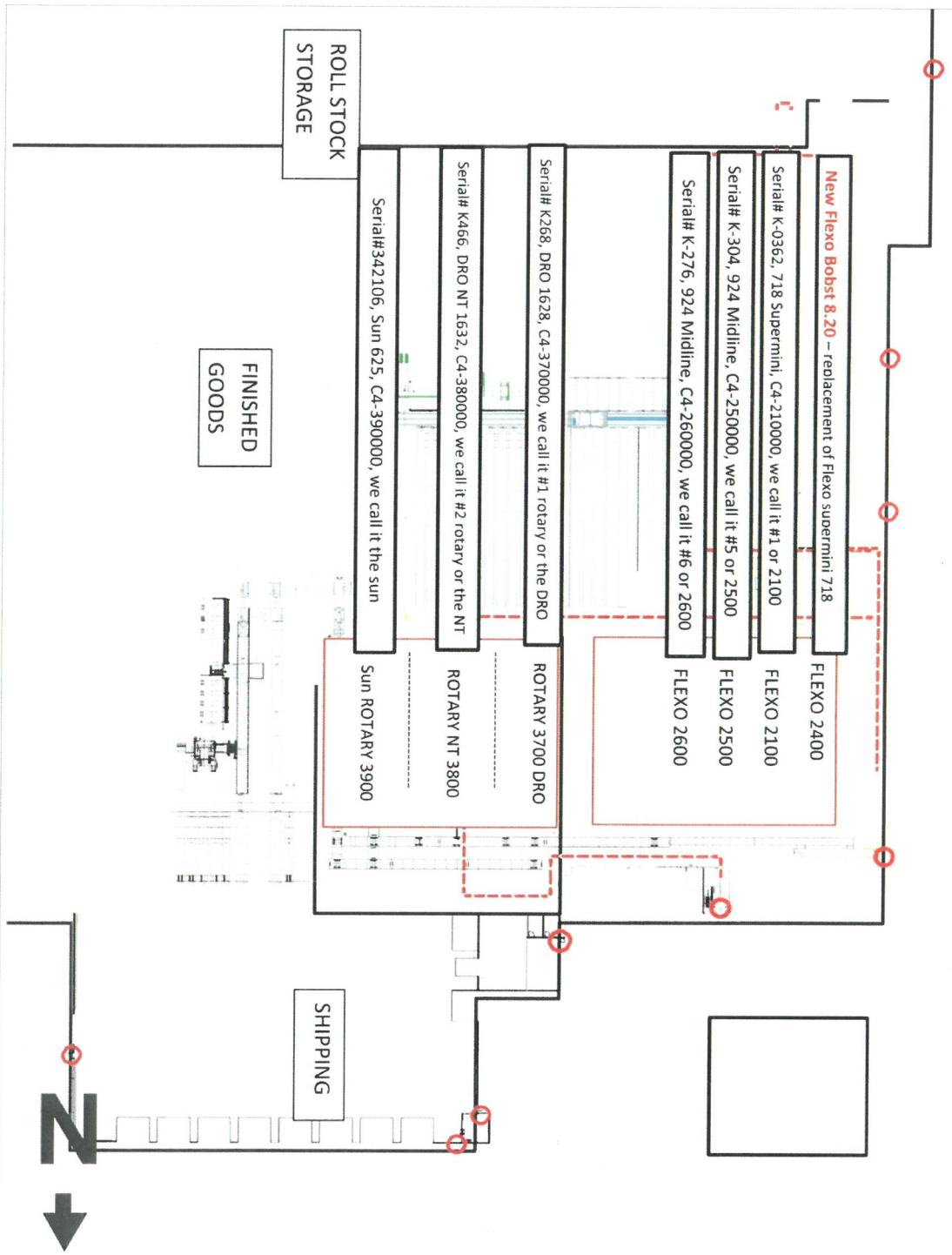


Figure 1: Floor plan of the Facility after the installation of the new Flexo Bobst 8.20

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.

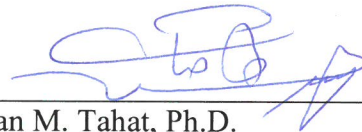
DATED at Yakima, Washington this April 30th, 2015

PREPARED BY:



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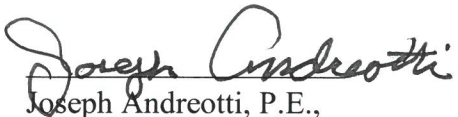
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Yakima Regional Clean Air Agency

REVIEWED BY:



Joseph Andreotti, P.E.,
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5/5/15

PMs emissions		emission factor (lbs/ ton trim)	
cyclone emissions (from 94 source test)			
PM10		0.18	
PM2.5		0.063	
Flexo-gluer (Bobst 8.2) actual production *		522,000 mSF per year	
Die Cutter (Sun 625) actual production *		250,000 mSF per year	
Flexo-gluer (Bobst 8.2) potential production		600,000 mSF per year	
Die Cutter (Sun 625) potential production		302,000 mSF per year	
Actual production		772,000 mSF per year	
Potential production		902,000 mSF per year	
* Estimated number from Kapstone			
TOTAL PMs Emissions			
Actual		3428	PM10 (TPV) PM2.5 (TPV)
Potential/ allowable		4005	0.31 0.11
			0.36 0.13

** 148 lbs = 1mSF, 6% waste

VOCs and HAPs emissions	
Contents	
0.84%	propylene glycol weighted average
0.017%	acrylic acid weighted average
0.0017%	styrene weighted average
0.1%	Vinyl Acetate weighted average
1.6%	VOCs in ink
0.35%	VOCs in glue

	Modeling
Parameters: urban (population 92,000) 1 g/s volume source: lateral dimension = 185.32 / 4.3 = 43.1 m, vertical = 8.05/2.15 = 3.74 m release height = 4.02 m default aeroscreen meteorological conditions distance = 93.7 m (center of volume source + 10ft) urban and average moisture	133 ug/m3
Results: At 94 m, 24-hour concentration is	

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