YAKIMA REGIONAL CLEAN AIR AGENCY

Order of Approval Permit No NSRP-02-WRLLLC-21

New Source Review (NSR) Order of Approval for WestRock Longview LLC for upgrades to the Sun Automation 625 Rotary Die Cutter; (which includes installation of a bundle breaker, bundle conveyors, pre-feeder, infeed conveyor, LOGH takeaway, primary and secondary load formers, and quick corners)

IN THE MATTER OF approving a project which establishes an increase in air contaminants at WestRock Longview LLC, in Yakima, WA. THIS ORDER OF APPROVAL IS HEREBY ISSUED TO:

Applicant/Permittee: WestRock Longview LLC
Cardboard Box Plant
Responsible Official:

Located at: 2001 Longfibre Ave,
Yakima, WA 98903

Contact: WestRock Longview LLC
Creighton O Shaul
2001 Longfibre Ave,
Yakima, WA 98903
(509) 248-4241

IN COMPLIANCE WITH THE PROVISIONS OF THE STATE OF WASHINGTON CLEAN AIR ACT (Revised Code of Washington (RCW)) CHAPTER 70A.15.2210, WASHINGTON ADMINISTRATIVE CODE (WAC) 173-400-110 and173-460-040:

ISSUE DATE: **May 11, 2021**

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

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

1.0 Description of the Source

1.1 WestRock Longview LLC hereafter, referred to as the Permittee, KS, Facility or Source is the owner and operator of a corrugated packaging plant, located at 2001 Longfibre Avenue, Yakima, WA. WestRock Longview LLC was formerly known as Kapstone container Corporation. The Permittee is proposing an upgrade to the material handling of the material into and out of the Sun Automation 625 Rotary Die Cutter (RDC); (which includes installation of a bundle breaker, bundle conveyors, pre-feeder, infeed conveyor, LOGH takeaway, primary and secondary load formers and quick corners). This upgrade will increase the capacity and the overall production as requested by the Permittee and documentation supplied.

1.2 The Facility is a corrugated containers and miscellaneous paper products manufacturing company. Figure 1 shows the Google Earth view of the Facility, and Figure 2 is the Facility layout as submitted by the Permittee. This upgrade is for the material handling equipment for the Sun Automation 625 RDC. The actual width of the pre-feeder will be increased from 112 inches to 122 inches, which will increase the actual production capacity of the unit.

1.3 Specifications for the new equipment are listed in Table 1. The Permittee submitted the specifications for the update with the New Source Review (NSR) application which shall be part of this Order. The City of Yakima issued a Determination of NonSignificance for this project; file number SEPA#002-21 satisfying the State Environmental Policy Act (SEPA) process dated March 16, 2021. A public notice for this NSR was published in accordance with the Washington Clean Air Act (RCW) 70A.15.2210 and section 173-400-171 of the Washington Administrative Code (WAC).

1.4 Air emissions from this installation are mainly in the form of small particulates (PM_{10} 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, respectively.

2.0 Determinations

In relation to the above installation, YRCAA determines that the Facility shall comply with all 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 PM_{10};

2.2 The Facility classified as a Synthetic Minor source. Conditions of this Permit and others shall be part of the Title V permit, if the Facility becomes a Title V sources.

2.3 This modification is subject to the NSR Requirements of WAC 173-400-110 and WAC 173-460-040;

2.4 In addition to limits imposed by this Order, 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 is for the material handling upgrades to the Sun Automation 625 RDC as specified in this Order. This upgrade will result in an increase in the ink usage and glue due to increase in production but will stay below the allowable limit set in the previous order and as specified in Appendix A of this Order. These changes will exceed the limit set in the previous Order for the Allowable PM emissions. Appendix A has the new limits for this modification to the operation located at 2001 Longfibre Ave. in Yakima WA.

3.2 The upgrades to the Sun 625 RDC will be operated in accordance with the submitted NSR application to 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 modification upgrade shall be developed as specified in this Order and the manufacturers recommended standards;

3.3.2 The upgrade and the speed of operation shall be operated as submitted with NSR and as per manufacturer specifications and certification;

3.3.3 PM emissions and the ink and glue limits and its TAPs content are adhered to as specified in Appendix A of 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 limit in this Order and other issued Orders shall meet the ASIL of WAC 173-460 and the National Ambient Air Standards (NAAQs) of 40 CFR Part 50 as specified;

3.3.5 The Permittee shall strive for ink and glue containing less HAPs, TAPs and VOCs, whenever possible;

3.4 The total air emissions from the facility-wide must be calculated monthly and submitted to YRCAA annually as part of the annual registration program. The calculation should be clear and specific for each production line in the Facility.

3.5 The Permittee must upgrade the 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 corrugator upgrade 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 and SDS) 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 upgrade 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 (APCO) or any of his designated staff during inspections, or upon request, when deemed necessary, in accordance with the rules and regulations.

3.7 The Sun 625 RDC including the new equipment upgrades must be maintained and operated as per manufacturer specification. It shall be the responsibility of the Permittee to check and make sure that new equipment and all other equipment in the Facility is maintained and operated as per manufacturer specification.

3.8 This Order authorizes the installation of the following equipment:

Table 1 Authorized installation equipment list.

Unit Type	Manufacturer and Model Number	Equipment Dimensions
Bundle Breaker	GEO Martin; Quick Break III	92" x 64" L
Stacker	GEO Martin; LBX Series	130"
Pre-Feeder	Alliance; BPBF2-BS 66-125-220	33'-6"L x 21'-3"W
Infeed Conveyor	ACS	None given

LOG Takeaway	GEO Martin	186" W x 92" L
Load Former Primary	Alliance; LM3E 6-6	14'-9"L x 15'-1"W
Load Former Secondary	Alliance; LM3E 6-6	14'-9"L x 15'-1"W
Quick Corner X3	GEO Martin; Quick Corner III	66" W X 66" L
Quick Corner X1	GEO Martin; Quick Corner III Bi-Directional	96" W X 66" L
Bundle Conveyor	GEO Martin	66" W x 114" L
Bundle Conveyor	GEO Martin	66" W X 480" L
Bundle Conveyor	GEO Martin	66" W X 621" L
Bundle Conveyor	GEO Martin	66" W X 417" L

4.0 General Approval Conditions

4.1 The Sun 625 RDC and new equipment upgrades must comply with all applicable Federal, State, and Local laws and regulations, including, but not limited to RCW 70A.15 (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 70A.15.2210, 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 air contaminants into the atmosphere, in accordance with RCW 70A.15.2500 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 70A.15.3150 and YRCAA Regulation 1, Article 5.

4.6 This Order number NSRP-02-WRLLLC-21 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 70A.15.3150 and 3160, WAC 173-400-230 and YRCAA Regulation 1, Article 5, Section 5.02.

4.10 The requirements of this Order 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 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 Applicable laws 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 must have a written approval from YRCAA before increasing the usage as submitted and listed in Appendix A.

5.2 If chemical composition changed from what was submitted with previous NSR's 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.

5.3 The total ink usage from this upgrade may increase from what is shown in attachment A provided that the HAPs/TAPs remains below the thresholds and approved by YRCAA.

5.4 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.

5.5 The Permittee must conduct visible emission inspections of the rotary die cutter and related equipment at least once per calendar year. Opacity as measured by 40CFR Part 60, Appendix A, Method 9 should not exceed a ten percent (10%) and zero percent (0%) average for the cyclone and rotary die cutter 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. Inspections are to be performed while the Facility is in operation during daylight hours. If during a yearly visible emissions inspection visible emissions other than uncombined water are greater than the allowable limit, the Permittee must as soon as practicable but within 24 hours of the initial observation:

5.5.1 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

5.5.2 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 specified limits.

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 production from the Sun 625 RDC and all other flexo graphic and die cutter lines, 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 a rolling 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.

6.4 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 70A.15.2210.

You may appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process and applicable requirements is governed by Chapter 43.21B RCW. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB, P.O. Box 40903, Olympia, WA, 98504-0903. Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order to YRCAA in paper form - by mail or in person. E-mail is not accepted.

DATED at the City of Yakima, Washington on this 11th day of May, 2021

PREPARED BY:

Wade Porter
Engineer Specialist
Yakima Regional Clean Air Agency

REVIEWED BY:

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

REVIEWED BY:

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

ISSUED BY:

Keith M. Hurley
Air Pollution Control Officer
Yakima Regional Clean Air Agency

Attachement A
NSRP-02-WRLLLC-21

WestRock Longview LLC

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Flexo Folder Gluer (Model: Bobst 8.20)
Sun Rotary Die Cutter (Sun 625)

Kapstaone now WestRock Longview LLC is increasing the width of their Pre-feeder and infeed conveyor actual width from 112 to 122 inches width, and they increased the production Capacity of the SUN 625 RDC from 250,000 MSF to 700,800 MSF.

Thus an increase in production capacity of 58.39%

Original Actual Production Rate

Flexo-gluer (Bobst 8.2) actual production *	522,000	mSF per year
Die Cutter (Sun 625) actual production *	250,000	mSF per year

Modified Production Rate to 8.93% increase. A linear increase assumed.

Flexo-gluer (Bobst 8.2) actual production	522,000.0	mSF per year	
Die Cutter (Sun 625) actual production	700,800.0	mSF per year	From Karl Schumacher e-mail; 2-26-21

PMs emissions

cyclone emissions (from 94 source test)	**emission factor (lbs/ ton trim)**
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 *	700,800	mSF per year
Flexo-gluer (Bobst 8.2) potential production	600,000	mSF per year
Die Cutter (Sun 625) potential production	900,000	mSF per year
Actual production	**1,222,800**	**mSF per year**
Potential production	**1,500,000**	**mSF per year**

* 2021 NSR Modification from NSR Application

TOTAL PMs Emissions

	Trims (Tons/yr) **	PM10 (TPY)	PM2.5 (TPY)
****Actual**	5429	0.49	0.17
Potential/ allowable	6660	0.60	0.21

*** 148 lbs = 1mSF, 6% waste*

Original Actual Production Rate

ACTUAL ink (TPY)	101
ACTUAL glue (TPY)	50

Modification to Ink and Glue Usage

ACTUAL ink (TPY)	160.0
ACTUAL glue (TPY)	79.2

VOCs and HAPs emissions

Contents

0.00%	[1]propylene glycol weighted average (ink)
0.017%	acrylic acid weighted average (ink)
0.0019%	styrene weighted average (ink)
0.1%	Vinyl Acetate weighted average (glue)
1.6%	VOCs in ink
0.35%	VOCs in glue

ACTUAL Usage as submitted in the application

ACTUAL ink (TPY)	160.0
ACTUAL glue (TPY)	79.2

	TPY	lb/hr	lb/d	g/s	De minimis (lb/d)	SQER (lb/d)	Model Value (ug/m3)	ASIL (ug/m3)	Modified Actual Use (lb/day)
[1]TOTAL Propylene Glycol	0.000	0.000	0.000	0.000	0.110	2.100	0.0	28	0.000
TOTAL Acrylic Acid	0.027	0.009	0.209	0.0011	0.0037	0.074	0.2	1	0.209
TOTAL styrene	0.003	0.001	0.023	-	3.200	65.000	-	870	0.023
TOTAL vinyl acetate	0.079	0.025	0.609	-	0.740	15.000	-	200	0.609
VOCs	2.821	0.904	21.699		-	-	-	-	21.699

[1]**Facility has iliminated the use of products that contain Propylene Glycol**

Modeling

Parameters:
urban (population 92,000)
1 g/s
volume source: lateral dimension =669.3' /4.13' = 162', vertical =20'/2.15 = 9.3'

release height = 20 x .66 = 13'
default aerscreen meteorological conditions
distance = 355'
urban and average moisture

Results:
At 355 ft, 24-hour concentration is **220 ug/m3**

PTE/ Allowable Usage

PTE ink (TPY)	**625**
PTE glue (TPY)	**150**

= based on 260 days

	TPY	lb/hr	lb/d	g/s	De minimis (lb/d)	SQER (lb/d)	Model Value (ug/m3)	ASIL (ug/m3)	**Permit limit (lb/d)**
[1]TOTAL Propylene Glycol	**0.000**	**0.000**	**0.000**	**0.000**	0.11	2.1	0.0	28	**0.000**
TOTAL Acrylic Acid	**0.106**	**0.034**	**0.817**	**0.0043**	0.0037	0.074	0.9	1	**0.817**
TOTAL styrene	0.012	0.004	0.091	0.0005	3.2	65	0.105	870	**0.091**
TOTAL vinyl acetate	0.150	0.048	1.154	0.006	0.74	15	1.3	200	**1.154**
VOCs	**10.463**	**3.353**	80.48	0.422	**	**	**	**	**80.481**
	=(usage)(content %)*								

all TAPs have a 24 hr average period

[1]Products used no longer contain Propylene Glycol

Figure 1: Google Earth View of WestRock Longview LLC.
Showing property boundary to centroid of building.

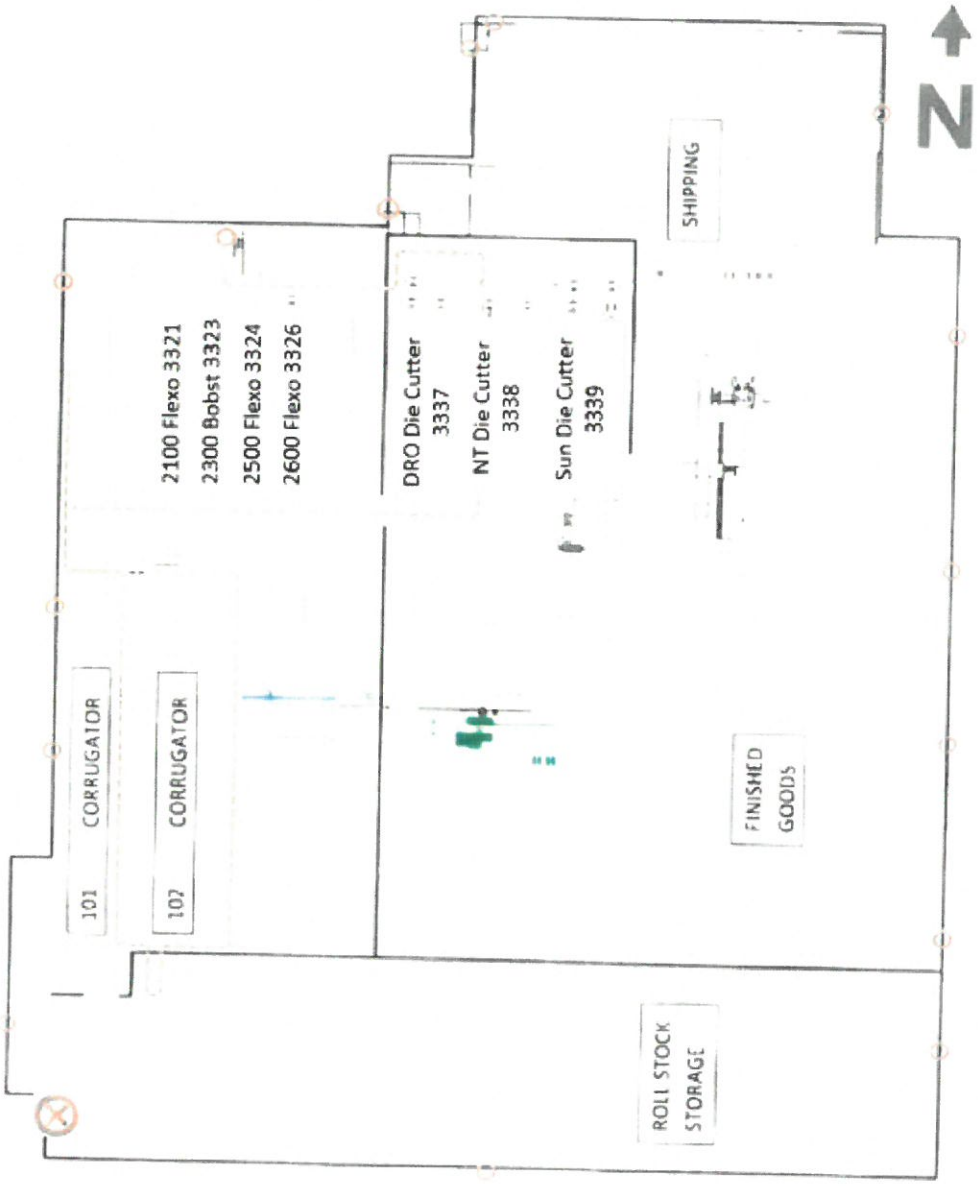

Figure 2: Floor plan of the Facility including Sun Automation 625 RDC and all operational lines.