Solid Waste Facility License Application

Metro
600 NE Grand Ave.
Portland, OR 97232
503-797-1835

INSTRUCTIONS

1. Complete Parts 1 and 2 of application.
2. Verify information is accurate and application is complete.
3. Sign page 14 of application.
4. Include application fee payment
5. Submit application and payment to:
   Metro
   Solid Waste Compliance and Cleanup
   600 NE Grand Avenue
   Portland, OR 97232-2736
   Tel: (503) 797-1835
   Fax: (503) 813-7544
   SWCC@oregonmetro.gov

Metro use only
DATE RECEIVED:
DATE DEEMED COMPLETE BY METRO:

AUG 28 '18 RCVD
AUG 28 '18 RCVD

PART 1 – Standard License Application Information

1. Type of Application (please check one)	
x	New license Date of Pre-Application Conference: 06/26/18
☐	Renewal of an existing license Solid Waste Facility License Number:
☐	Change of authorization to an existing license (other than a renewal) Please describe the proposed change below in Section 3.
☐	Transfer of ownership or control of an existing license

2. Type of facility (please check one) [not listed]	
☐	Non-putrescible (dry) waste material recovery facility
☐	Source-separated food waste reload facility
☐	Yard debris reload facility
☐	Other solid waste reload facility
☐	Yard debris composting facility

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3. If seeking a change of authorization to an existing license, please explain the proposed change below (attach additional pages if necessary). Complete all remaining sections of this form as they pertain to the request.
This application is for an existing facility with no changes in operation proposed.

4. Applicant (Licensee)	
Facility Name:	WestRock Portland Recycle
Company Name:	WestRock
Street Address:	6328 SE 100th
City/State/Zip:	Portland, Or. 97266
Mailing Address:	6328 SE 100th
City/State/Zip:	Portland, Or. 97266
Contact Person:	Wayne Jackson
Phone Number:	503/593-2956
Fax Number:	
E-mail Address:	Wayne.jackson@westrock.com

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5. Applicant's Owner or Parent Company (provide information for all owners)	
Name:	WestRock, CP, LLC
Mailing Address:	1000 Abernathy Road, NE
City/State/Zip:	Atlanta, GA 30328
Phone Number:	770 326 8136
Fax Number:	
E-mail Address:	Steve.hamilton@westrock.com

6. Site Operator (if different from Applicant)	
Company Name:	
Contact Person:	
Street Address:	
Mailing Address:	
City/State/Zip:	
Phone Number:	
Fax Number:	
E-mail Address:	

7. Site Description			
Tax Lot(s): 15 2E 16 DD -06700 R551001640 12 SE 16 DD – 06600 R551001540	Section: 16 16	Township: 1S 1S	Range: 2E 2E

8. Land Use		
Present Land Use Zone:	**Recycle Facility**	
Is proposed use permitted outright?	x Yes If yes, attach a copy of the *Land Use Compatibility Statement* (see Attachment E).	☐ No
Is a conditional use permit necessary for the facility?	☐ Yes If yes, attach a copy of the *Conditional Use Permit*	x No
Are there any land use issues presently pending with the site?	☐ Yes If yes, please explain the land use issues below.	x No

Description of the pending land use issues identified above:	NA	
Are any permits required from the Oregon Department of Environmental Quality (DEQ)?	x Yes If yes, please list all DEQ permits below and attach copies with this application (see Attachment G).	☐ No
Listing of all required DEQ permits:	Underground Injection Control (UIC) Authorization by Rule	
Are any other local permits or building codes required?	☐ Yes If yes, please list all other required permits below and attach copies with this application (see Attachment H).	x No
Listing of other required permits:		

9. Land Owner		
Is the applicant the sole owner of the property on which the facility is located?	x Yes	☐ No If no, please complete this section with additional pages if necessary and attach a completed *Property Use Consent Form* (see Attachment F).
Property Owner:	WestRock, CP, LLC	
Mailing Address:	1000 Abernathy Road, NE	
City/State/Zip:	Atlanta, GA 30328	
Phone Number:	770 326 8136	

10. Public/Commercial Operations		
Will the facility be open to the public (e.g., non-commercial self-haul customers)?	☐ Yes	x No
Will the facility be open to non-affiliated commercial solid waste collectors?	X Yes	☐ No
Will the facility accept waste from outside the boundary of Metro?	X Yes	☐ No

11. Operating Hours and Traffic Volume			
	Public (non-commercial self-haul)	Commercial Affiliated	Commercial Non-Affiliated
Operating Hours	NA	7am-10:pm	7am-10pm
Estimated Vehicles Per Day	NA	15	30

12. Inbound Waste/Feedstock by Generator
Identify the expected annual tonnage amount of waste/feedstock that the facility will receive and recover from the following types of generators.

Generator	Tons Received	Tons Recovered	Tons Residual
Agricultural:	0	0	0
Commercial:	20,000	19,600	400
Industrial:	20,000	19,800	200
Residential:	60,000	51,600	8,400
TOTAL TONS:	100,000	91,000	9,000

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13. Inbound Waste/Feedstock by Type

Identify the types of waste/feedstock and annual tonnage amounts of each that the applicant expects to receive at the facility. Also, identify how the applicant will manage each waste stream, the expected tip fees that the applicant will be post at the facility, and estimate of typical length of time required to process each waste stream (attach additional pages if necessary).

Waste/Feedstock Type	Accepted at Facility	Expected Annual Tonnage Amount	Type of Activity to be Performed on Waste	Expected Tip Fee (per Ton)	Estimate the maximum and typical lengths of time required to process each day's receipt of each waste/feedstock type
Source-Separated Wood:	☐ Yes x No				
Source-Separated Yard Debris:	☐ Yes x No				
Source-Separated Residential Food Waste Mixed with Yard Debris:	☐ Yes x No				
Source-Separated Commercial and other Food Waste:	☐ Yes x No				
Inerts (e.g., rock, concrete, etc.):	☐ Yes x No				
Non-putrescible (dry) waste:	☐ Yes x No				
Source-Separated Recyclables:	x Yes ☐ No	100,000	Sort/Clean	NA	24 hours
Special Wastes (please specify):	☐ Yes x No				
Petroleum Contaminated Soil:	☐ Yes x No				
Putrescible (wet) waste:	☐ Yes x No				
Other Waste/Feedstocks (please specify):	☐ Yes x No				
Other Waste/Feedstocks (please specify):	☐ Yes x No				

14. Outbound Waste, Products, and By-Products
List the expected destination and amount of each type of outbound solid waste, products or by-products that the applicant expects to transport from the facility (attach additional pages if necessary).

Destination Site (Name and address)	Waste/Product/By-Product Type	Expected Annual Tonnage	Purpose of Delivery*
Wasco County Landfill	Trash	9,000	Waste Disposal
Export (varies greatly)	Mixed Paper Grades	30,000	Recovery
Export (varies greatly)	Mixed Plastic	4,000	Recovery
Domestic (varies greatly) Virtually all West Coast	Mixed Plastic, Glass, Metal Grades	7,000	Recovery
Domestic (varies greatly) Virtually all West Coast	Mixed Paper Grades	50,000	Recovery

**For example: disposal, recovery, land reclamation, beneficial use, etc*

15. Subcontractors
Provide the name, address and function of all subcontractors involved in the facility operations:

NAME	ADDRESS	FUNCTION
None		

PART 2 – Standard Attachments to License Application (License application continued)

- Metro requires the following attachments (Attachments A– I) for new applications in order for Metro to deem a license application complete. The applicant must clearly label each attachment.
- Application submittals such as facility design, building plans, site plans and specifications must be prepared, as appropriate, by persons licensed in engineering, architecture, landscape design, traffic engineering, air quality control, and design of structures.

- An applicant seeking to renew an existing license without substantive changes to the current authorization may defer to previously submitted documents if Metro has the most current version of all attachments (Attachments A- I) on file, unless otherwise directed by Metro staff. The date of the document on file with Metro is required for each deferred attachment. To confirm that Metro has current documentation on file, please contact Metro's Solid Waste Compliance & Cleanup Division at (503) 797-1835 or via email at SWCC@oregonmetro.gov.

ATTACHMENT A: SITE PLAN The applicant must submit a facility site plan that includes scaled maps and drawings showing the location of the facility at an appropriate scale, and no smaller than one inch equals 30 feet. Applicant must provide the following information on the site plan:
(1) The location of the facility on a tax lot map.
(2) Boundaries of the facility and property including all tax lots.
(3) All buildings on the property (existing and proposed) and other pertinent information with respect to the operation of the facility, to include: a) scale and scale house location b) fencing and gates c) access roads d) paved areas e) vegetative buffer zones and berms f) sorting line and other major materials recovery equipment
(4) All exterior stockpile footprints, material types stored outside, and the maximum height of each exterior material stockpile.
(5) Identify water sources for fire suppression.
(6) Identify on-site traffic flow patterns.
(7) Facility signage. Facility signs must: a) display all of the information required by Metro b) be posted at all public entrances to the facility; and c) conform with local government signage regulations.
(8) All receiving, processing, reload and storage areas, as applicable, for solid waste, source-separated recyclable materials, yard debris, recovered materials, product/by-products, waste residuals, exterior stockpiles, hazardous waste, and other materials.
(9) Load checking areas (as applicable).
(10) Storage areas for the temporary containment of prohibited waste that the facility inadvertently receives, while awaiting proper removal or disposal of the prohibited waste. The facility must cover and enclose the containment areas and construct them in a manner to prevent leaking and contamination.
(11) The location of all commercial and residential structures within a one mile radius of the facility, identified on a map or aerial photograph.

(12) The prevailing wind direction, by season, identified on a map or aerial photograph. (Compost facility only).

FACILITY RENEWAL APPLICANTS ONLY:

☐ By checking this box, I certify that to the best of my knowledge, the Site Plan on file with Metro dated _____ is the most current and accurate version of this document.

ATTACHMENT B: FACILITY DESIGN PLAN

The applicant must submit a facility design plan that addresses the following:

(1) All solid waste facility license applicants must submit a written description of the following:
- a) Facility overview.
- b) Facility design and technology.
- c) Buildings and major equipment (existing and proposed).
- d) Construction timeline (as applicable).
- e) Types of wastes to be processed.
- f) Residuals management.

(2) A compost facility must submit a written description of the following (in addition to the items listed above in subsection 1):
- a) Feedstock receiving procedures.
- b) Feedstock pretreatment and contaminant removal procedures and equipment (as applicable).
- c) Feedstock processing details and methods. Dewatering and liquids management (as applicable).
- d) Pathogen reduction / control procedures (as applicable).
- e) Monitoring, quality control and testing.

(3) Dust, odor, airborne debris and litter.
- a) Submit a proposed design or existing design plan that identifies the location of all areas for load checking, receiving/tipping, mixing, processing, reloading, and storage for all materials.
  - ○ **Compost facility only**: Also, provide locations for compost/curing piles/windrows, aeration systems including bio-filters or enclosed structures to prevent odors from being detected offsite.
- b) Describe control measures to prevent odors, fugitive dust, airborne debris and litter. Describe how the facility design will provide for shrouding and dust prevention for the receiving area, processing area, storage area, reload area, and all waste processing equipment and all conveyor transfer points where dust is generated.

(4) Fire prevention.
Submit proof of compliance with local and state fire codes.

(5) Adequate vehicle accommodation.
Provide documentation to demonstrate that the facility will provide adequate on-site areas at the facility's entrance, scales, loading and unloading points and exit points to allow safe queuing off the public roads and right-of-way given the number and types of vehicles expected to use the facility during peak times.

(6) Water contaminated by solid waste and solid waste leachate.
Submit a DEQ (or equivalent) approved plan with pollution control measures to protect surface and ground waters, including runoff collection and discharge and equipment cleaning and washdown water. See Attachment **G** UIC Authorization by Rule Application

FACILITY RENEWAL APPLICANTS ONLY:

☐ By checking this box, I certify that to the best of my knowledge, the Facility Design Plan on file with Metro dated _____ is the most current and accurate version of this document.

ATTACHMENT C: OPERATING PLAN

The applicant must submit an operating plan for review and approval by Metro. This section lists the procedures that the applicant must include in the required facility operating plan. The applicant must submit a proposed facility operating plan with the completed license application subject to any additional elements as required in the license - if one is approved and issued. The operating plan must include, at a minimum a detailed description of:

(1) Types of solid wastes the facility will accept.

(2) How the facility will further recycling or material recovery processing within the Metro region (as applicable). The description should address each of the following:
- a) How you will distinguish and manage loads of incoming source-separated recyclables from other materials.
- b) The steps you will take to recover materials from solid waste. Include the material recovery methods and equipment to be used on site (e.g. sorting lines, hand picking, magnets, etc.).
- c) How you will manage the materials and wastes and the type of equipment that you will use (from delivery to reload and transport to a processing or disposal facility).
- d) The general markets for the material recovered at the facility.
- e) The methods you will use for measuring and keeping records of materials received, recovered from processing, and solid waste disposed - consistent with Metro's reporting requirements.

(3) Procedures for inspecting loads including:
- a) Procedures for inspecting incoming loads for the presence of prohibited or unauthorized wastes.
- b) A set of objective criteria for accepting and rejecting loads.
- c) An asbestos testing protocol for all material that appears as if it may contain asbestos.

(4) Procedures for processing and storage of loads including:
- a) Processing of all authorized solid wastes.
- b) Reloading and transfer of authorized solid wastes.
- c) Managing stockpiles.
- d) Storing authorized solid wastes
- e) Minimizing storage times and avoiding delay in processing and managing of all authorized solid wastes and recovered materials.

(5) Procedures for rejecting or managing prohibited wastes. The operating plan must describe procedures for rejecting, managing, reloading and transporting to an appropriate facility or disposal site any prohibited or unauthorized wastes discovered at the facility. The plan must include procedures for managing: a) Hazardous wastes. b) Other prohibited solid wastes (e.g., putrescible (wet) waste, special waste, asbestos). c) Procedures and methods for notifying generators not to place hazardous wastes or other prohibited wastes in drop boxes or other collection containers destined for the facility.
(6) Procedures for odor prevention. The operating plan must establish procedures for preventing all objectionable odors from being detected off the premises of the facility. The plan must include: a) A management plan that the facility will use to monitor and manage all objectionable odors of any derivation including malodorous loads delivered to the facility. b) Procedures for receiving and recording odor complaints, immediately investigating any odor complaints to determine the cause of odor emissions, and promptly remedying any odor problem at the facility.
(7) Procedures for emergencies. The operating plan must describe procedures that the facility will follow in case of fire or other emergency.
(8) Procedures for preventing and controlling nuisances, including noise, vectors, dust, litter, and odors. Include a description of how the facility will encourage delivery of waste in covered loads.
(9) Procedures for fire prevention, protection, and control measures used at the facility.
FACILITY RENEWAL APPLICANTS ONLY: ☐ By checking this box, I certify that to the best of my knowledge, the Operating Plan on file with Metro dated _____ is the most current and accurate version of this document.

ATTACHMENT D: INSURANCE The applicant must submit proof of the following types of insurance, covering the applicant, its employees, and agents:
(1) The most recently approved ISO (Insurance Services Office) Commercial General Liability policy, or its equivalent, written on an occurrence basis. The policy must include coverage for bodily injury, property damage, personal injury, death, contractual liability, premises and products/completed operations. All insurance coverage must be a minimum of $1,000,000 per occurrence and $1,000,000 aggregate.
(2) Automobile bodily injury and property damage liability insurance must be a minimum of $1,000,000 per occurrence and $1,000,000 aggregate.
(3) The insurance must name Metro, its elected officials, departments, employees, and agents as ADDITIONAL INSUREDS on the Commercial General Liability and automobile insurance policies.
(4) Certification of Workers' Compensation insurance including employer's liability. If the applicant or licensee has no employees and will perform the work without the assistance of others, you may attach a certificate to that effect in lieu of the certificate showing current Workers' Compensation.

Commented [SH1]: I can get this from Risk Management if you don't have

FACILITY RENEWAL APPLICANTS ONLY:
☐ By checking this box, I certify that to the best of my knowledge, the Insurance on file with Metro dated _____ is the most current and accurate version of this document.

ATTACHMENT E: LAND USE COMPATIBILITY STATEMENT (LUCS)
The applicant must submit the following information:
A copy of a completed Metro LUCS or DEQ LUCS. The Metro LUCS is available at www.oregonmetro.gov/solidwasteforms.
FACILITY RENEWAL APPLICANTS ONLY:
▪ By checking this box, I certify that to the best of my knowledge, the LUCS on file with Metro dated May 17, 2018 is the most current and accurate version of this document.

ATTACHMENT F: PROPERTY USE CONSENT FORM
The applicant must submit the following information:
If required in Part 1, section 9, of this application. The Property Use Consent Form is available at www.oregonmetro.gov/solidwasteforms.
FACILITY RENEWAL APPLICANTS ONLY:
☐ By checking this box, I certify that to the best of my knowledge, the Property Use Consent Form on file with Metro dated _____ is the most current and accurate version of this document.

ATTACHMENT G: DEQ PERMIT APPLICATIONS AND INFORMATION
The applicant must submit the following information:
A copy of all applications for necessary DEQ permits and any other information required by or submitted to DEQ, including closure plans, financial assurance for the costs of closure of the facility, and conditional use permit or land use compatibility statement, if applicable.
FACILITY RENEWAL APPLICANTS ONLY:
☐ By checking this box, I certify that to the best of my knowledge, the DEQ permit or applications on file with Metro dated _____ is the most current and accurate version of this document.

ATTACHMENT H: OTHER REQUIRED PERMITS
The applicant must submit the following information:
A copy of any required permit, license or franchise that a governing body or agency (whether federal, state, county, city or other) has granted or issued to the applicant (not including materials required by Attachment G). If the governing body or agency has not yet issued the required permit, license or franchise, the applicant must provide a copy of the application it submitted. Metro may also request copies of correspondence pertaining to any required permit, license or franchise.

FACILITY RENEWAL APPLICANTS ONLY: ☐ By checking this box, I certify that to the best of my knowledge, all other required permits on file with Metro dated _____ are the most current and accurate version of these documents.

ATTACHMENT I: CLOSURE PLAN AND FINANCIAL ASSURANCE The applicant must submit the following information:
(1) If DEQ requires a closure plan and financial assurance, the applicant must include copies of these documents with the application per Attachment G.
(2) If DEQ does **not** require a closure plan for the facility, attach a closure document describing closure protocol and associated costs. Closure means those activities associated with restoring the site to its condition before the applicant engaged in the licensable activity. Closure may include, but is not limited to, removal of all on-site solid waste stockpiles accumulated after Metro issued a Metro Solid Waste Facility License. The closure plan is the written protocol that specifies the activities required to properly close the facility and cease further solid waste activities.
(3) If DEQ does **not** require any financial assurance for the costs of closure of the facility, applicant must attach proof of financial assurance for the costs of closure of the facility. Cost of closure means the costs associated with restoring the site to its condition before the applicant engaged in the licensable activity. These costs may include but are not limited to: a) The cost to load and transport accumulated solid waste stockpiles to an authorized disposal site or recycling facility; b) The cost to "tip" the waste at an authorized landfill or recycling facility; and c) Other related costs such as site grading or additional disposal costs associated with restoring the site. Examples of acceptable forms of financial assurance include, but are not limited to, the following: surety bond, irrevocable letter of credit, closure insurance, escrow account. If the DEQ does not issue a permit or require financial assurance, then Metro may waive the requirement for financial assurance if the applicant demonstrates that the cost to implement the closure plan will be less than $10,000.
FACILITY RENEWAL APPLICANTS ONLY: ☐ By checking this box, I certify that to the best of my knowledge, the closure plan on file with Metro dated _____ is the most current and accurate version of this document.

PUBLIC NOTICE AND CONFIDENTIAL INFORMATION

This application and all of the supporting documentation that the applicant provides is subject to Metro's public notice procedures. Metro will notify and provide the public with an opportunity to review and comment on the proposed application. The public notice may include, but is not limited to, posting the complete application on Metro's website.

Metro
600 NE Grand Ave.
Portland, OR 97232
503-797-1835

The applicant may identify as confidential any reports, books, records, maps, plans, income tax returns, financial statements, contracts and other similar written materials of the applicant that are directly related to the proposed application and that are submitted to or reviewed by Metro. The applicant must prominently mark any information that it claims confidential with the mark "CONFIDENTIAL" before submitting the information to Metro. Subject to the limitations and requirements of ORS Chapter 192 (public records law) and other applicable laws, Metro will treat as confidential any information so marked and will make a good faith effort to not disclose that information unless Metro's refusal to disclose the information would be contrary to applicable Oregon law.

Within five days of Metro's receipt of a request for disclosure of information identified by the applicant (or licensee) as confidential, Metro will provide the applicant (or licensee) written notice of the request. The applicant (or licensee) will have three days within which time to respond in writing to the request before Metro determines, at its sole discretion, whether to disclose any requested information. The applicant (or licensee) must pay any costs incurred by Metro as a result of Metro's efforts to remove or redact any confidential information from documents that Metro produces in response to a public records request. These conditions do not limit the use of any information submitted to or reviewed by Metro for regulatory purposes or in any enforcement proceeding. In addition, Metro may share any confidential information with representatives of other governmental agencies provided that, consistent with Oregon law, those representatives agree to continue to treat the information as confidential and make good faith efforts to not disclose the information.

APPLICANT CERTIFICATION
An authorized agent of the applicant must sign this application. Metro will not accept an application without a signature.

I certify that the information contained in this application is true and correct to the best of my knowledge. I agree to notify Metro within 10 days of any change in the information submitted as a part of this application.

SIGNATURE OF AUTHORIZED AGENT _____

TITLE _____

PRINT NAME _____

DATE _____ PHONE _____

EMAIL _____

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Portland, OR 97232
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The applicant may identify as confidential any reports, books, records, maps, plans, income tax returns, financial statements, contracts and other similar written materials of the applicant that are directly related to the proposed application and that are submitted to or reviewed by Metro. The applicant must prominently mark any information that it claims confidential with the mark "CONFIDENTIAL" before submitting the information to Metro. Subject to the limitations and requirements of ORS Chapter 192 (public records law) and other applicable laws, Metro will treat as confidential any information so marked and will make a good faith effort to not disclose that information unless Metro's refusal to disclose the information would be contrary to applicable Oregon law.

Within five days of Metro's receipt of a request for disclosure of information identified by the applicant (or licensee) as confidential, Metro will provide the applicant (or licensee) written notice of the request. The applicant (or licensee) will have three days within which time to respond in writing to the request before Metro determines, at its sole discretion, whether to disclose any requested information. The applicant (or licensee) must pay any costs incurred by Metro as a result of Metro's efforts to remove or redact any confidential information from documents that Metro produces in response to a public records request. These conditions do not limit the use of any information submitted to or reviewed by Metro for regulatory purposes or in any enforcement proceeding. In addition, Metro may share any confidential information with representatives of other governmental agencies provided that, consistent with Oregon law, those representatives agree to continue to treat the information as confidential and make good faith efforts to not disclose the information.

APPLICANT CERTIFICATION
An authorized agent of the applicant must sign this application. Metro will not accept an application without a signature.

I certify that the information contained in this application is true and correct to the best of my knowledge. I agree to notify Metro within 10 days of any change in the information submitted as a part of this application.

SIGNATURE OF AUTHORIZED AGENT _____

TITLE General Manager

PRINT NAME Wayne Jackson

DATE 8/15/18 PHONE 503 593 2956

EMAIL Wayne.Jackson@westrock.com

Attachment A: Site Plan

Attachment B: Facility Design Plan

Attachment C: Operating Plan

Attachment D: Insurance

Attachment E: Land Use Compatibility Statement

Attachment F: Property Use Consent Form—not required

Attachment G: ODEQ Permit Application: UIC Authorization by Rule

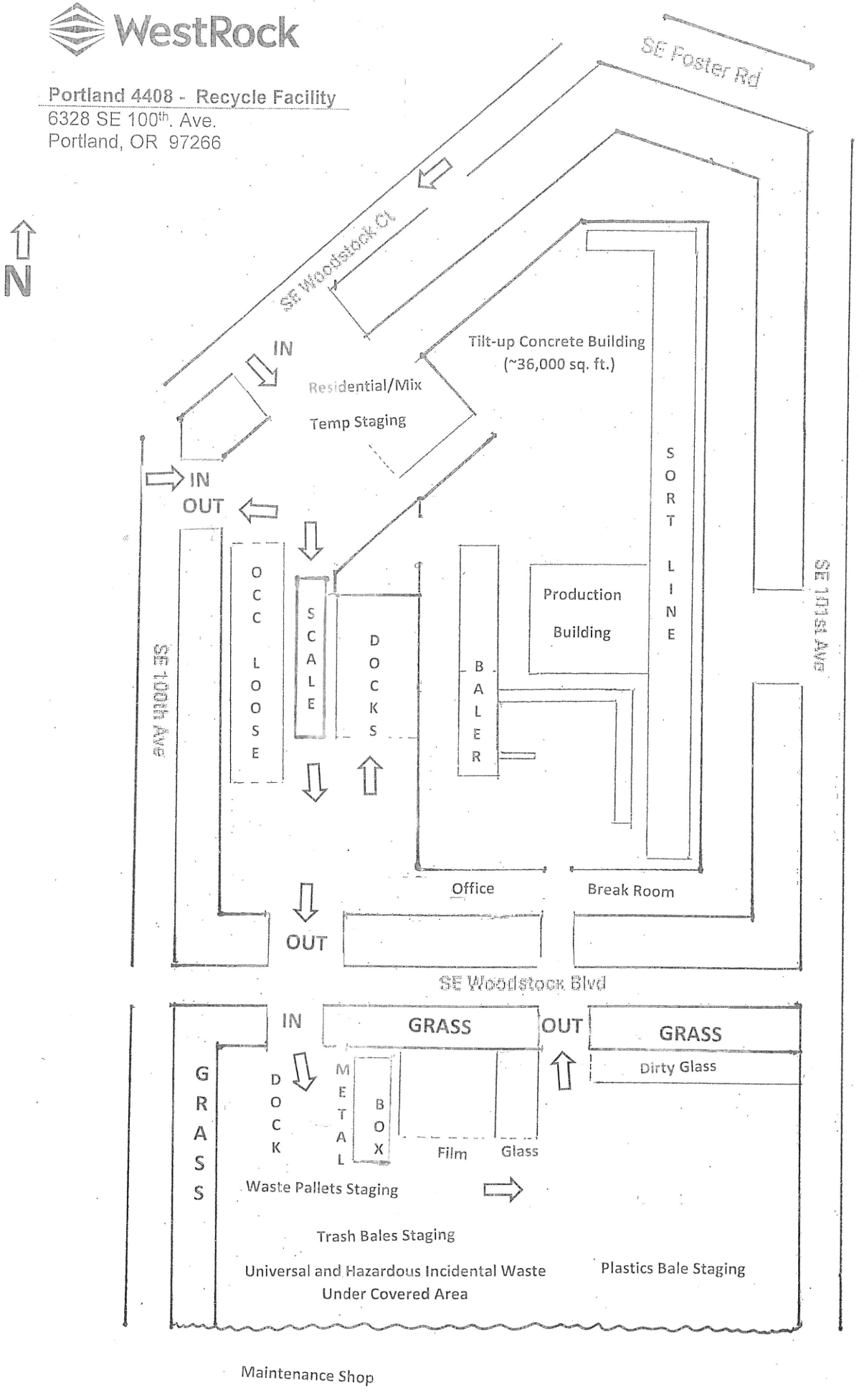
Attachment H: Other Required Permits—None Required

Attachment I: Emergency Procedures

Attachment J: Fire Prevention

WestRock

Portland 4408 - Recycle Facility
6328 SE 100th. Ave.
Portland, OR 97266

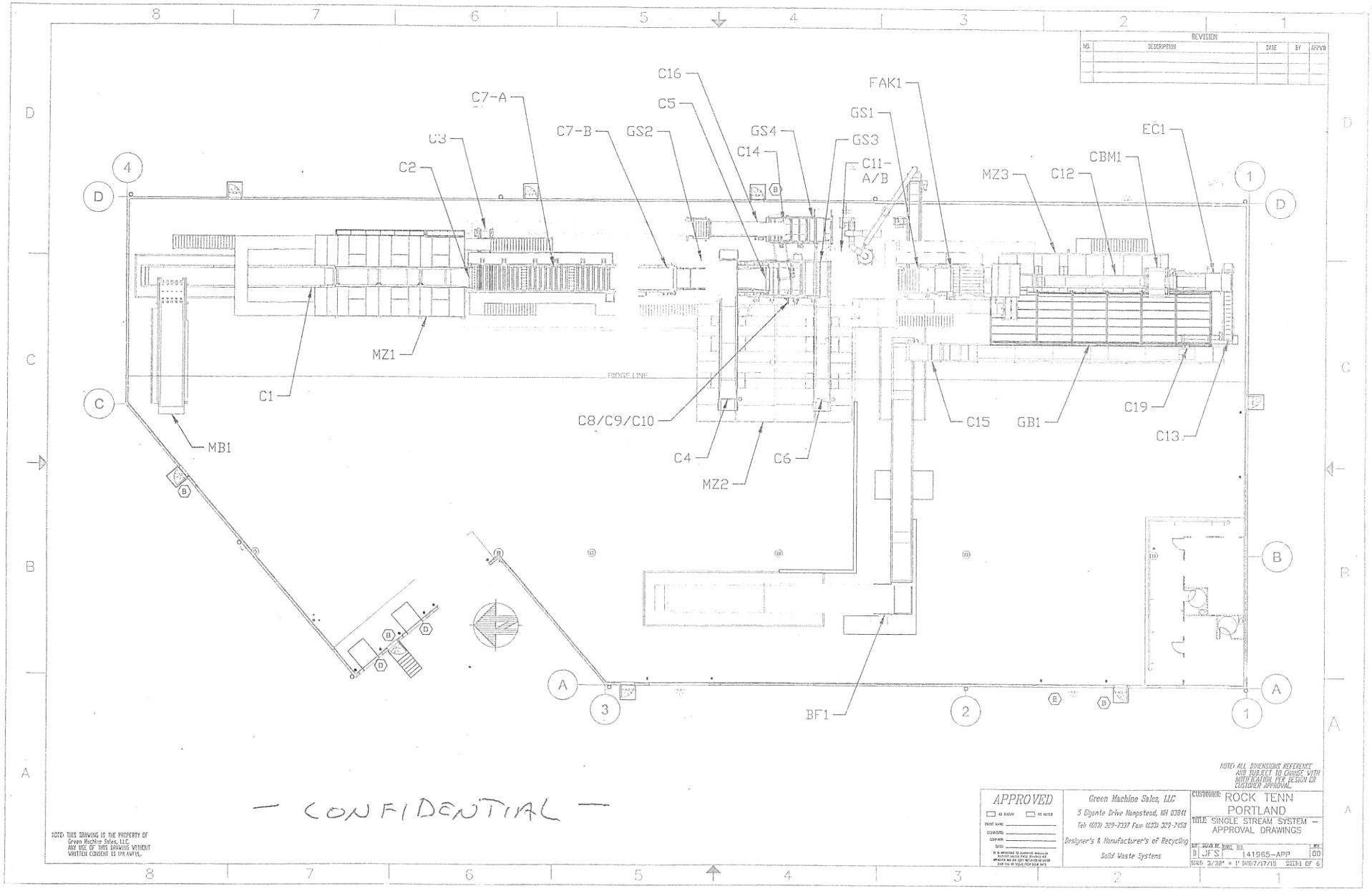


3 Front-end Loaders
4 Lift Trucks
2 People Lifts
6 Semi Tractors (off-site
~73 Trailers (most off-sit

Attachment

B

FACILITY DESIGN PLAN



REVISION

NO.	DESCRIPTION	DATE	BY	APPVD

— CONFIDENTIAL —

NOTE: THIS DRAWING IS THE PROPERTY OF Green Machine Sales, LLC
ANY USE OF THIS DRAWING WITHOUT WRITTEN CONSENT IS UNLAWFUL.

NOTE: ALL DIMENSIONS REFERENCE ARE SUBJECT TO CHANGE WITH NOTIFICATION PER DESIGN OR CUSTOMER APPROVAL.

APPROVED
AS SHOWN AS NOTED
FROM BAND
SIGNATURE
COMPANY
DATE

Green Machine Sales, LLC
5 Cigante Drive Hanpstead, NH 03841
Tel: (603) 329-7337 Fax: (603) 329-7450
Designer's & Manufacturer's of Recycling
Solid Waste Systems

CUSTOMER: ROCK TENN PORTLAND
TITLE: SINGLE STREAM SYSTEM – APPROVAL DRAWINGS
DRAWN BY: DJFS | DWG. NO.: 141965-APP | REV.: 00
SCALE: 3/32" = 1' DATE: 7/17/15 SHEET 1 OF 6

Attachment

C

OPERATING PLAN

WestRock Portland Recycle

6328 SE 100th, Portland, OR 97266

Operating Plan

June 2018

This operations plan is intended to meet the requirements of the Metro Solid Waste Facility License Application (June 2016 version). The WestRock Portland Recycling facility accepts source-separated recyclable materials from contracted suppliers. Public drop offs are not accepted.

1. **Materials Accepted**: Recyclable paper, old corrugated containers, glass, plastic, tin, UBC, scrap metal.
2. **Materials Recovery Description**:
    a. Minimal distinguishing between types of material is needed as all material accepted is intended for recycling. Recovery of recyclable materials from municipal solid waste is not performed at the facility.
    b. The facility utilizes a sort line and manual picking to separate varying types of recyclable materials (e.g. OCC from mixed paper)
    c. Separated recyclables are baled and stacked prior to shipment to customer.
    d. Materials are managed by standard material handling equipment: front end loaders, lift trucks, etc.

3. **Markets Served**: Domestic and export for paper and plastics, domestic for metals and glass.

4. **Materials Tracking**: All material received at the facility and shipped from the site is weighed. All material coming into the facility is documented with a weight ticket and a "break-down report" (a receiving ticket) where grading/contents are documented. Information is retained including scale tickets, supplier/customer name, transaction dates, etc. All materials shipped have a standard bill of lading describing the material, customer and destination. Records are also kept on monthly, quarterly and annually for the total amount of material received at the facility, shipped to customers and disposed of as solid waste.

5. **Procedures for inspecting incoming loads**

As part of the WestRock's commitment to protecting the environment and to ensure compliance with environmental best-practices, this facility implements material inspection program to minimize the likelihood of receiving non-recyclable materials (e.g., hazardous

materials) that may be a significant source of pollutants in surface runoff. This facility intends to receive clean recyclables from commercial suppliers and waste haulers, only. We handle only recyclable materials such as curbside and commercial recycling program materials, cardboard, mixed paper, office paper, newsprint, aluminum cans, printers waste, books, and commercial paper, PET, LDPE & HDPE are received for processing. The following incoming materials are not accepted at the facility at any time:

- Liquids and liquid-soaked materials require special handling because they cannot be disposed of in landfills.
- Universal Waste (e.g. used lamps, batteries, pesticides, mercury containing devices, etc.).
- Electronic waste, such as computer, television, gaming console, and telephone equipment except as recovered from intended materials.
- Medical/biohazardous waste (can include sharps, needles, and materials exposed to blood and other bodily fluids).
- Food and other putrescible materials that are present in loads in quantities above incidental amounts (can attract vermin and create odor and other potential problems).
- Tires or wood (except incidental pallets)
- Vegetative or landscaping materials
- PCB-containing items such as old transformers and lighting ballasts, typically manufactured in the 1970s or earlier.
- Asbestos- containing materials such as insulation, floor tiles, roofing materials and other items
- Any hazardous waste defined in 40 CFR261
- Refrigerant, CRC and HCFC containing equipment;
- Any materials which have been contaminated with any of the above

If incoming material is contaminated with any of the above unacceptable materials, then the following procedures must be followed:

1. When possible, haulers of waste streams will promptly reject non-recyclables wastes or unacceptable materials at the source. We contract with local commercial haulers to transport recyclable materials to our facility. These haulers have procedures to prevent transportation of solid waste to our facilities. Any solid waste received is rejected and promptly returned.
2. If unacceptable material is identified after being unloaded at the facility, then the inspector identifying the unacceptable material will notify management immediately.
3. Management will contact the material supplier to arrange a container to be dropped off at the facility. When the container is dropped off, facility personnel will load the unacceptable materials into the container, as soon as possible. Management will

arrange to have the waste hauler or supplier to remove the container of non-recyclables or off-specification materials to an appropriate disposal facility.

6. **Procedures for processing and storage of loads**

Loose loads of material are dumped on-site (OCC outside) and mixed loads are dumped inside the building, except when temporarily full – mixed material is then dumped in a storage area outside to be moved inside as soon as there is room. Material is processed on a daily basis to keep inventory turning.

Loose material is either "floor-sorted" or run across the sort line depending on mix and contamination.

Baled loads are unloaded at the dock and stored inside and outside the building.

Finished goods bales (paper) are stored mostly inside the building. Most plastics and metal bales are stored outside the building in the yard south of the main building.

7. **Procedures for odor prevention and nuisance control:**

The WestRock Portland facility does not accept putrescible materials for any purpose. When miscellaneous odiferous materials are detected on the sort line they are placed in containers and transferred to a dumpster for off-site disposal in a MSW landfill on a frequent basis.

Loose recyclable materials provided by suppliers are transported to the facility in covered trucks to reduce littering. Uncovered loads of loose material are not accepted. Facility personnel inspect the streets and fence line around the property and at adjacent residential properties daily for litter. The facility has also provided contact information to the neighboring property owners in the event of a complaint.

Facility practice is to have a yard/environmental/clean-up person on staff on day shift daily to monitor conditions and respond to blowing paper in a timely manner.

Facility contracts with pest control provider to decrease/eliminate rodent issues.

8. **Emergency Procedures**

See Attachment I

Closure plan:

Short-term: Our system has enough capacity to hold material for a short time if we have an equipment failure or other event. If that time

extends past capacity, we have an agreement with another competing facility to accept material from our supply base.

Long-term: While this scenario is highly unlikely, in the event of a permanent or long term closure, we would negotiate successful transfer of volume to an appropriate entity.

Facility Design (AR 5.01-1115)

1. Storage and Processing Area on north yard (main building) and south yard is paved. Most processing (sorting and baling is completed inside the building)
2. Dust Control needs are a minimal issue in our system outside the building. The sort line has a misting system to minimize dust inside the building.
3. Litter Control -Both the north and south yards are fenced to minimize litter. General housekeeping inspections are completed to remove any materials from outside the fence line on a continual basis.
4. Fire Suppression -see Attachment J
5. Capacity - The facility has capacity to handle stated volumes. In the event of shipping constraints, the facility utilizes marketing department to prioritize order booking. If the facility reaches physical top capacity, supply can be lowered or off-site storage used to hold inventory.
6. Prohibited Waste Storage (non-sourced, inadvertent materials) is in a covered area in the south yard and handled and disposed of properly.
7. Tipping/Reload Areas are paved in both the north and south yards.
8. Access and Vehicle Accommodation - See traffic Attachment A for flow of traffic. Both operating yards are gated. Loads are not generally tarped inbound or outbound from facility.

Facility Operating Requirements (AR 5.01 – 1120)

1. Preventing Contamination and Degradation – Facility stores paper material inside while awaiting shipment. OCC is stored outside and inside. Plastic finished goods are stored outside. Inventory turns nearly 100% monthly. In slow markets paper may be stored outside, but it will be shipped first whenever possible to avoid degradation. Elemental exposure in the time frame above would not create a degradation issue.
2. Residuals - Waste materials are baled and stored separately from recyclable materials.
3. No Disposal - The facility follows ODEQ guidelines concerning disposal. Facility will include Metro in the discussion should disposing of recyclable materials need develop.
4. Tipping and Reloading Materials - Material is tipped on a paved surface and processed as soon as possible.
5. Material Storage - Most paper material is normally stored inside the building except as noted below.

6. Outdoor Material Storage - Facility stores paper material inside while awaiting shipment. OCC is stored outside and inside. Plastic finished goods are stored outside. Inventory turns nearly 100% monthly. In slow markets paper may be stored outside, but it will be shipped first whenever possible to avoid degradation.
    a. Outside storage meets fire codes
        i. Trailers and drop boxes are used periodically to store materials as needed.
        ii. Both outdoor storage areas are paved.
        iii. Materials stored outside (including paper) is stored for a limited time to avoid degradation, litter, fire, vectors, odors or other issues.
    b. Stock piles are noted on Attachment A
    c. Material stock piles are intended for short-term holding awaiting processing or shipment.
7. Vehicle Maintenance - All vehicles are part of facility preventive maintenance program and all employees are training on spill prevention and housekeeping.
8. Impervious Surface Maintenance - All reload areas/roads are maintained to minimize dust, debris and litter. General housekeeping practices are used to clean any areas that need to be cleaned.
9. Facility Capacity - The facility will not be operated beyond its capacity.
10. Controlling Dust and Litter - Facility has weekly formal housekeeping audits and daily clean-up processes.
11. Covered Loads - Load covering is not applicable to this location.
12. Fire Prevention – see Attachment J
13. Qualified Operator - The facility will not operate without qualified operator(s) to handle any business scheduled for that day.
14. Prohibited Waste – see Section 5 above
15. Load Checking - Does not directly apply to this type of business, but all material is inspected as received.
16. Measurement of Materials - All material is weighed (certified) inbound and outbound from the facility with a truck scale or "bin" scale insider the plant.
17. Transaction Records and Reporting - Records are kept of all transaction on our corporate retention schedule.
18. Access Control – the facility is fenced and if production personnel are not on-site, there is a security contractor making rounds every 30 minutes over night and on the weekends.
19. Traffic Flow - see Attachment A. Also, we have posted reminders of "NO TRUCK" streets close to the facility.
20. Water Protections – see Attachment G
21. Vector Control – see Section 7 above
22. Response to Nuisance Complaints – Nuisance complaints will be documented and queued for resolution utilizing the incident reporting process for the facility.
23. Noise – Outside operations are scheduled from 7am-10pm. After 7pm, efforts are made to minimize outside noise.

24. Odor – Odor has not been an issue at this facility
25. Signage – Upon permitting the facility will have the following Information note on the public sign near Foster Road:
    a. Name of Facility
    b. Address of Facility
    c. Emergency telephone number for the facility
    d. Operating hours during which the facility is open for the receipt of authorized waste
    e. Fees and charges if applicable (not-applicable)
    f. Metro's name and telephone number (503) 234-3000
    g. A list of prohibited wastes
    h. Directions not to queue to on public roadways
    i. Vehicle/traffic flow information or diagram
    j. Covered load requirements

WestRock

Portland Recycling Facility
6328 SE 100th Ave
Portland, OR 97266

Initial Incident and Near Miss Report
Issue Date: July 30, 2013
Revision: 3
Revision Date: January 15, 2018

To be completed by employee, supervisor, or lead person upon notification of a near miss incident which did not result in personnel injury or damage, but clearly had the potential to do so.

Date:		Location:	
Time:		Reporter:	
Witness(es):		Supervisor:	

Situation (check one): _____Near Damage _____Near Injury _____Near Hit

_____Damage _____Injury _____Complaint

Describe What Happened: Near Hit, Damage, Injury, Complaint:

Resolution, if applicable:

Use additional pages if necessary, use drawings as needed...

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 06/01/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MCGRIFF, SEIBELS & WILLIAMS OF TEXAS, INC. 5080 Spectrum Dr., Suite 900E Addison, TX 75001	CONTACT NAME: PHONE (A/C, No, Ext): 469-232-2100 FAX (A/C, No): E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A :ACE American Insurance Company	22667
INSURER B :ACE Property and Casualty Insurance Company	20699
INSURER C :Indemnity Insurance Company of North America	43575
INSURER D :Agri General Insurance Company	42757
INSURER E :ACE Fire Underwriters Insurance Company	20702
INSURER F :	

INSURED
WestRock Company; WestRock RKT Company; WestRock MWV, LLC; WestRock CP, LLC; WestRock USC, Inc.; WestRock Services, Inc.; Multi Packaging Solutions Inc., Et Al
1000 Abernathy Road NE
Atlanta, GA 30328

COVERAGES

CERTIFICATE NUMBER: XQ5ABP55

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Broad Form Vendors AI X Contractual Liability GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC OTHER:	X		HDOG27871707	10/01/2017	10/01/2018	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 1,000,000 $ 5,000 $ 2,000,000 $ 10,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY			ISAH09063845	10/01/2017	10/01/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Trailer Interchange	$ 2,000,000 $ $ $ $ 65,000
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $			XOOG28167349 002	10/01/2017	10/01/2018	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
A C D E	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WLRC646196A (AOS) WLRC64619718 (CA, MA, AZ) WLRC64619706 (TN) SCFC6461972A (WI)	10/01/2017	10/01/2018	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
								$ $ $ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Metro, its elected officials, departments, employees and agents are named Additional Insured as their interest may appear and to the extent as required by written contract.

CERTIFICATE HOLDER

Metro
Solid Waste Compliance and Cleanup
600 NE Grand Avenue
Portland, OR 97232-2736

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD 25 (2016/03)

The ACORD name and logo are registered marks of ACORD

Attachment

E

LAND USE COMPATABILITY STATEMENT

Land Use Compatibility Statement (LUCS)

Solid waste application supplemental form

PR18-16221BLUCS

Metro
600 NE Grand Ave.
Portland, OR 97232
503-797-1835

SUBMIT THIS FORM TO:
Metro
Solid Waste Compliance and Cleanup
600 NE Grand Avenue
Portland, OR 97232-2736
Tel: (503) 797-1835
Fax: (503) 813-7544
SWCC@oregonmetro.gov

Metro use only
DATE RECEIVED:
DATE DEEMED COMPLETE BY METRO:

METRO Land Use Compatibility Statement (LUCS)

WHAT IS A LUCS? A Land Use Compatibility Statement is the document that Metro relies on to determine that an application to Metro for a solid waste facility license or franchise is compatible with the applicant's local land use approval.

WHEN IS A LUCS REQUIRED? A completed LUCS should accompany each application for a new Metro solid waste facility license, or franchise and any application for a change of authorization to add new activities to an existing license or franchise.

HOW TO COMPLETE A LUCS: The applicant must fill out Section 1 of the form and then submit the form to the local city or county planning office where Section 2 is completed. The local planning office will determine if the facility meets local land use requirements concerning planning and zoning. The applicant then submits the LUCS to Metro as part of its license or franchise application.

WHERE TO GET HELP: Questions on the Metro LUCS can be directed to Metro Solid Waste Compliance and Cleanup Division staff responsible for processing the Metro license or franchise application at (503) 797-1835.

SECTION 1: To be completed by the applicant:

1. Applicant Information			
Facility Name:	WESTROCK RECYCLING		
Company Name:	WESTROCK CP LLC		
Location Address: 6328 SE 100th. Ave. PORTLAND, OR 97266		Mailing Address: SAME	
Contact Person:	WAYNE JACKSON		
Phone Number: 503 772 8712	Fax Number:	E-mail: WAYNE.JACKSON@WESTROCK.COM	

Land Use Compatibility Statement (LUCS)

Solid waste application supplemental form

Metro
600 NE Grand Ave.
Portland, OR 97232
503-797-1835

PR18-162218 LUCS

2. Site Description			
Tax Lot(s): 1S 2E 16 DD - 06700 R5510016 40 12 SE 16 DA - 06600 R5510015 40	Section: 16 16	Township: 1S 1S	Range: 2E 2E

3. Description of the type of facility, the solid wastes to be accepted and the activities to be undertaken

A. Check all the proposed solid wastes to be accepted in the left column "Proposed waste streams". In the "Activity code" column to the right, insert the letter(s) of all the proposed activities from the list of codes (a-g) corresponding to each waste stream:

Proposed waste streams	Activity code(s)	Proposed activities and codes:
____ Putrescible mixed solid waste (i.e. residential garbage)	✓	a) Material recovery (source separated)
____ Food waste (source separated vegetative or non-vegetative)		b) Material recovery (mixed dry waste)
____ Yard debris		c) Composting
____ Wood waste (clean wood waste)		d) Reload / transfer
____ Wood waste (painted or treated)		e) Chipping & grinding
____ Non-putrescible mixed solid waste (dry mixed waste)		f) Other (explain in detail)
____ Other (explain in detail)		g) NA (not applicable)

B. Description of proposed solid wastes to be accepted and proposed waste-related activities. Please describe in detail the activity you plan to perform on each waste you accept. Add additional pages if necessary.

RECEIVE, SORT, BALE, SHIP OF COMMERCIAL & RESIDENTIAL RECYCLABLE PAPERS, PLASTICS & METALS. (d)

4. This land use approval is being sought in conjunction with application to Metro for (check all that apply)

New	☒	Amended	☐	License	☒	Franchise	☐

SECTION 2: To be completed by a city or county planning official:

1. Name of city or county that has land use jurisdiction

Portland Oregon

2. The proposed facility is located (check all that apply)

X	Inside city limits	X	Inside UGB
	Outside city limits		Outside UGB

Land Use Compatibility Statement (LUCS)

Solid waste application supplemental form

Metro
600 NE Grand Ave.
Portland, OR 97232
503-797-1835

PR 18-162218-LUCS

3. Consistency with local comprehensive plan and zoning ordinance	
☐	This facility is not regulated by the local comprehensive plan and zoning ordinance.
☒	This facility has been reviewed and is consistent with the local comprehensive plan and zoning ordinance. See notes below
☐	This facility has been reviewed and is not consistent with the local comprehensive plan and zoning ordinance.
☐	Consistency of this facility with the local comprehensive plan and zoning ordinance cannot be determined until the following local approval(s) are obtained:
☐ Conditional Use Approval	☐ Development Permit
☐ Plan Amendment	☐ Zone Change
☐ Other	
An application has been made for the local approvals checked above:	Yes ☐ No ☐

Local Government Planning Official - Reviewer Information:

Signature: Susan Poisner

Print Name: Susan Poisner

Title: City Planner

Date: May 17, 2018

Telephone Number: 503-823-5804

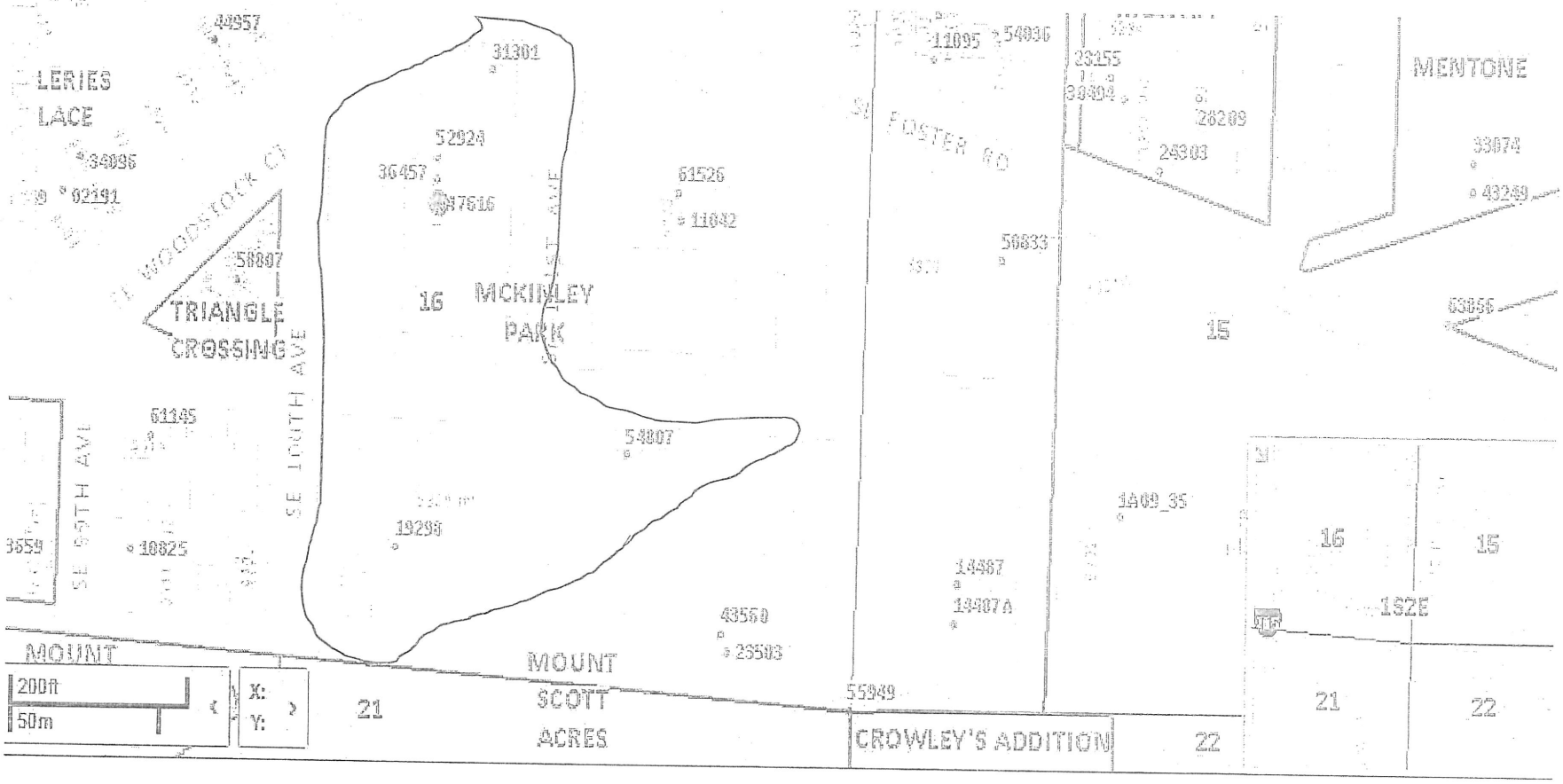
E-Mail: susan.poisner@portlandoregon.gov

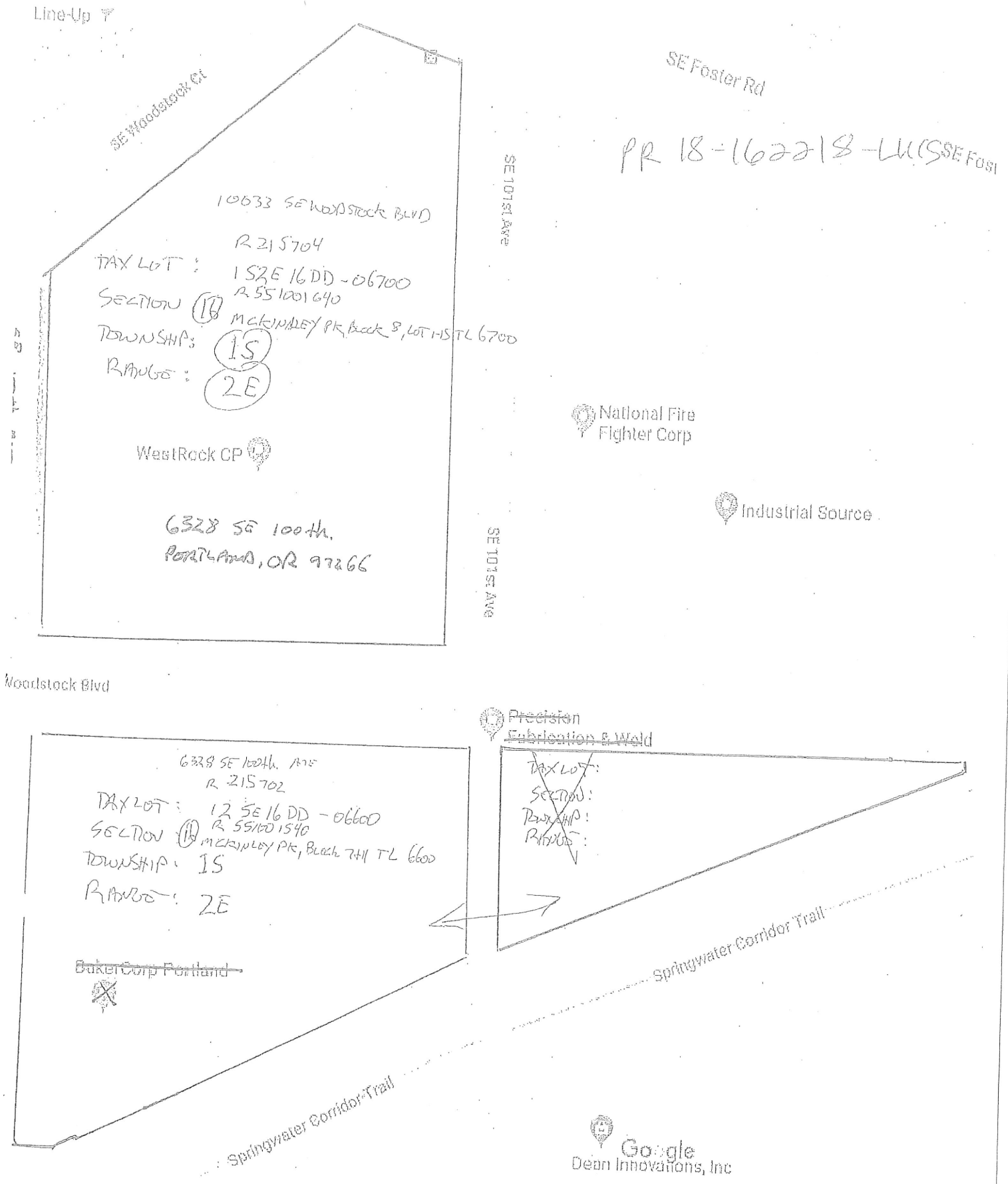
The site is zoned EG2. Industrial Service uses are outright allowed in the EG2 zone.

WestRock Recycling – Tax Lot Map

6328 SE 100th. Ave., Portland Oregon 97266

31301, 52924, 36457,47616,19298, 54887




Line-Up
SE Woodstock Ct
SE Foster Rd
PR 18-162218-LUC SE Fost
10033 SE Woodstock Blvd
R 215704
TAX LOT: 1S2E 16DD - 06700
R 551001640
SECTION: 16
McKinley Pk, Block 8, Lot 1-15 TL 6700
TOWNSHIP: 1S
RANGE: 2E
SE 101st Ave
National Fire Fighter Corp
WestRock CP
Industrial Source
6328 SE 100th Ave.
Portland, OR 97266
SE 101st Ave
Woodstock Blvd
6338 SE 100th Ave
R 215702
TAX LOT: 12S2E 16DD - 06600
SECTION: 16
R 551001540
McKinley Pk, Block 7+11 TL 6600
TOWNSHIP: 1S
RANGE: 2E
Precision Fabrication & Weld
TAX LOT:
SECTION:
TOWNSHIP:
RANGE:
Springwater Corridor Trail
Springwater Corridor Trail
Google
Dean Innovations, Inc

Attachment

F

PROPERTY USE CONSENT FORM (NOT REQUIRED)

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Attachment

G

ODEQ PERMIT APPLICATION: UIC AUTHORIZATION BY RULE

WestRock

June 11, 2018

Phil Richerson
UIC Senior Hydrogeologist
Oregon Department of Environmental Quality
800 SE Emigrant, #330
Pendleton, OR 97801

RE: WestRock Recycle Portland UIC

Dear Mr. Richerson:

I am enclosing with this letter our application for "*Class V Underground Injection Control Authorization Rule*" authorization for the UIC's at our Portland Recycling facility. This application includes the following documents:

1. Class V UIC Authorization by Rule application form
2. Storm Water Management Plan for the site.
3. Analytical Report for water discharged to the UIC's
4. December 17, 2016 correspondence from ODEQ to WestRock re. UICs
5. Location maps/drawings and boring logs.
6. Land Use Compatibility Statement
7. Facility Tier I SPCC plan

Site Description: Activities conducted at the WestRock Recycling facility involve collecting and sorting paper, metal, glass, and plastic recyclables. Recyclable materials collected at curbside locations are offloaded from trucks in a covered building on the north lot. The recyclable materials are placed on a conveyor belt and sorted by hand into newspaper, old corrugated containers (OCC), mixed paper, plastic bottles, glass, metal, miscellaneous plastic, and non-recyclable material. The recyclable portion is baled and moved outside to either the north or south lot before being trucked off site for sale. OCC, glass, and plastic bags are also received directly outside. Non-recyclable material removed from the sorting line is contained on the south lot in metal drop boxes that are kept covered when not loading. The nonrecyclable material is periodically hauled off site for proper disposal as solid waste. Other activities conducted at the site include routine equipment maintenance. Maintenance is conducted on stationary equipment inside the building on the north lot while mobile equipment maintenance is performed inside the maintenance shop on the on the south lot.

Nine (9) UIC's are located on the property with four of them dedicated to roof runoff, and the others receiving a combination of roof runoff and parking area runoff.

WestRock

The analytical information provided in this application is from a sample collected after a fire that occurred at our facility in December of 2017. The fire suppression water generated from that event represents a "worst case" runoff to the UIC's.

I have also attached one photograph of the recently installed cover over our on-site diesel fuel tank. Although this is a dual-wall tank with a berm around it, at your recommendation we installed a cover over the tank.

Lastly, as noted in the December 17, 2016 correspondence from ODEQ, we are not submitting any payment as specified in the authorization form as the company has previously paid $8,491 in permit fees.

Please contact contact me at (503) 772 8700 or at wayne.jackson@westrock.com; or alternatively you may contact Steve Hamilton at (404) 307-2865 or at steve.hamilton@westrock.com if you have any questions.

Sincerely,

Wayne Jackson
General Manager

6328 SE 100 Portland, OR 97266

DEQ
State of Oregon Department of Environmental Quality

Class V Underground Injection Control Authorization by Rule

Application for UICs that Drain Stormwater from Any Surface

DEQ Use Only
Received:
Amount:
Check #:
From:
UIC #:

This form will be processed within two weeks of receipt. All sections must be completed unless the form indicates that a section is optional. Instructions begin on page 5.

A. Fee for authorization by rule

Number of low risk injection systems 4 x $100 =		$ 400
Number of moderate risk injection systems ___ x $125 =		$
Number of high risk* injection systems 5 x $300 =		$ 1500
*High risk injection systems are invoiced a $100 annual monitoring processing fee.	Total Amount Due:	$ 1900

B. Owner information

Organization: WestRock, CP, LLC	Site contact: Wayne Jackson		
Mailing address: 6328 SE 100	City: Portland	State: OR	Zip: 97266
Phone number: 503 772 8700	Email address: wayne.jackson@westrock.com		

C. Facility information

Facility name: WestRock Portland Recycle	County: Multnomah		
Physical address: 6328 SE 100	City: Portland	State: OR	Zip: 97266
Coordinates of facility in decimal degrees at the CENTER of the site (example: 44.257961 / -122.652904).			
Latitude: 48 28 35 68 N	Longitude: 122 33 39 19 W		

D. Consultant information (optional)

Consultant contact name:	Company:
Phone number:	Email address:

E. Individual UIC information

1. What do you call this UIC? DW-1	Status: ☐ Under Construction ☒ Active	
Fluid Type ☒ Stormwater (5D2) ☐ Other (describe)		
Latitude in decimal degrees (example: 44.214736) 48.283568 N		
Longitude in decimal degrees (example: -121.349821) 122.333919 W		
Drainage Area (check all that apply) ☒ Roof ☒ Parking ☐ Road ☐ Other (describe)		
Answer the following questions about your UIC (not required for roof-only runoff)		
Yes ☒ No ☐	The UIC is less than 100 feet deep	
Yes ☒ No ☐	Is more than 500 feet from a water well and is not within a water well's two-year-time-of-travel.	
Yes ☒ No ☐	The UIC has at least 5 feet of vertical separation from seasonal high	

2. What do you call this UIC? DW-2	Status: ☐ Under Construction ☒ Active	
Fluid Type ☒ Stormwater (5D2) ☐ Other (describe)		
Latitude in decimal degrees (example: 44.214736) 48.283568 N		
Longitude in decimal degrees (example: -121.349821) 122.333919 W		
Drainage Area (check all that apply) ☐ Roof ☒ Parking ☐ Road ☒ Other (describe) Material Loading area		
Answer the following questions about your UIC (not required for roof-only runoff)		
Yes ☒ No ☐	The UIC is less than 100 feet deep	
Yes ☒ No ☐	Is more than 500 feet from a water well and is not within a water well's two-year-time-of-travel.	
Yes ☒ No ☐	The UIC has at least 5 feet of vertical separation from seasonal high	

E. Individual UIC information (continued from previous page)

3. What do you call this UIC? DW-3		Status: ☐ Under Construction ☒ Active
Fluid Type ☒ Stormwater (5D2) ☐ Other (describe) _____		
Latitude in decimal degrees (example: 44.214736) 48.283568 N		
Longitude in decimal degrees (example: -121.349821) 122.333919 W		
Drainage Area (check all that apply) ☒ Roof ☐ Parking ☐ Road ☐ Other (describe) _____		
Answer the following questions about your UIC (not required for roof-only runoff)		
Yes ☒	No ☐	The UIC is less than 100 feet deep
Yes ☒	No ☐	Is more than 500 feet from a water well and is not within a water well's two-year-time-of-travel.
Yes ☒	No ☐	The UIC has at least 5 feet of vertical separation from seasonal high

4. What do you call this UIC? DW-4		Status: ☐ Under Construction ☒ Active
Fluid Type ☒ Stormwater (5D2) ☐ Other (describe) _____		
Latitude in decimal degrees (example: 44.214736) 48.283568 N		
Longitude in decimal degrees (example: -121.349821) 122.333919 W		
Drainage Area (check all that apply) ☒ Roof ☐ Parking ☐ Road ☐ Other (describe) _____		
Answer the following questions about your UIC (not required for roof-only runoff)		
Yes ☒	No ☐	The UIC is less than 100 feet deep
Yes ☒	No ☐	Is more than 500 feet from a water well and is not within a water well's two-year-time-of-travel.
Yes ☒	No ☐	The UIC has at least 5 feet of vertical separation from seasonal high

5. What do you call this UIC? DW-5		Status: ☐ Under Construction ☒ Active
Fluid Type ☒ Stormwater (5D2) ☐ Other (describe) _____		
Latitude in decimal degrees (example: 44.214736) 48.283568 N		
Longitude in decimal degrees (example: -121.349821) 122.333919 W		
Drainage Area (check all that apply) ☐ Roof ☒ Parking ☐ Road ☐ Other (describe) Recycled Paper Storage		
Answer the following questions about your UIC (not required for roof-only runoff)		
Yes ☒	No ☐	The UIC is less than 100 feet deep
Yes ☒	No ☐	Is more than 500 feet from a water well and is not within a water well's two-year-time-of-travel.
Yes ☒	No ☐	The UIC has at least 5 feet of vertical separation from seasonal high

6. What do you call this UIC? DW-6		Status: ☐ Under Construction ☒ Active
Fluid Type ☒ Stormwater (5D2) ☐ Other (describe) _____		
Latitude in decimal degrees (example: 44.214736) 48.283568 N		
Longitude in decimal degrees (example: -121.349821) 122.333919 W		
Drainage Area (check all that apply) ☒ Roof ☒ Parking ☐ Road ☐ Other (describe) _____		
Answer the following questions about your UIC (not required for roof-only runoff)		
Yes ☒	No ☐	The UIC is less than 100 feet deep
Yes ☒	No ☐	Is more than 500 feet from a water well and is not within a water well's two-year-time-of-travel.
Yes ☒	No ☐	The UIC has at least 5 feet of vertical separation from seasonal high

Attach additional sheets if you are applying for authorization of more than six (6) UICs

F. Site Map A site map is attached, containing the following elements. NOTE: Maps should be no larger than 11"x17"

☒ Each UIC listed in Section E, labeled by name	☒ Property Lines	☒ North arrow
☒ Adjoining streets and buildings	☒ Aerial Photo	

G. UIC System Type

Check the following boxes to determine which of the remaining application sections you need to complete:

At least one UIC receives non-roof runoff.	☒ Complete Section H
The UIC(s) are located at a municipal, industrial, commercial, or apartment complex facility.	☒ Complete Section I, J, and K
The UIC(s) are located at an industrial or commercial facility where Hazardous substances, toxic materials, or petroleum products are used.	☒ Complete Section L
You own or operate the UIC(s).	☒ Complete Section M

H. General Requirements for non-roof runoff

I certify that:

☒	No contaminated soil or groundwater is present that will be impacted by the UIC
☒	The UIC only accepts stormwater drainage
☒	The UIC can be plugged or blocked in the event of a spill
☒	The site design has minimized stormwater runoff
☒	No other method of stormwater disposal, including construction or use of surface discharging storm sewers or surface infiltration design, is appropriate. (Use your best professional judgment.)

I. Vehicle Trips per day

On average, How many vehicle trips per day are there at the site? ☒ Fewer than 1,000 ☐ More than 1,000

J. Structural Best Management Practices

Check the following boxes to indicate the types of pretreatment on your UIC:

☐ Oil/Water Separator	☐ Sand Filter	☐ Cartridge Filtration
☒ Catch Basin Insert Bag	☐ Bioswale	☐ Oil and Sediment Trap Catch Basin (Three-foot sump required)
☐ Sedimentation Manhole	☐ Other:	

K. Additional requirements for apartment complexes, municipal, commercial, and industrial facility UICs

☒ Yes ☐ No	A Stormwater Management Plan has been prepared in accordance with OAR 340-044-0018(3)

No Exposure Certification

Are any of the following materials or activities exposed to precipitation in the area drained by your UICs?

☒ Yes ☐ No	Using, storing or cleaning industrial machinery or equipment, and the areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to stormwater
☐ Yes ☒ No	Materials or residuals on the ground, in trenches, running into injection systems or in stormwater inlets resulting from spills/leaks
☒ Yes ☐ No	Materials or products from past activity
☐ Yes ☒ No	Material handling equipment (except adequately maintained vehicles)
☒ Yes ☐ No	Materials or products handled during loading, unloading, or transporting activities
☒ Yes ☐ No	Materials or products stored outdoors except final products intended for outside use
☐ Yes ☒ No	Materials contained in open, deteriorated or leaking storage drums, barrels, tanks and similar containers
☐ Yes ☒ No	Materials or products handled or stored on roads or railways owned or maintained by the discharger
☒ Yes ☐ No	Waste material (except waste in covered, non-leaking containers)
☐ Yes ☒ No	Application or disposal of process wastewater

L. Additional requirements for industrial and commercial facilities that use hazardous substances, toxic materials, or petroleum products

☒ Site Assessment [meets OAR 340-044-0018(3)(d)]	☒ List of past accidents, spills or releases and responses
☒ UIC Maintenance Plan and Schedule	☒ Spill Prevention and Response Plan
☒ Employee Education Plan	

M. Signature of Legally Authorized Representative

I certify under penalty of law that the no exposure certification in Section H is accurate to the best of my knowledge. I certify under penalty of law that there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility or site identified in this document (except as allowed under 40 CFR 122.26(g)(2)) and/or OAR 340-044 UIC rules.

I understand that I am obligated to submit a No Exposure Certification to DEQ once every five years. I understand that I must allow the DEQ permitting authority, where the discharge is, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request.

I hereby certify that the information contained in this registration is true and correct to the best of my knowledge and belief.

Signature of legally authorized representative (sign above)	Date: 6/12/18		
Legally authorized representative: Wayne jackson	Title: General Manager		
Mailing address: 6328 SE 100	City: Portland	State: OR	Zip: 97266
Email address: wayne.jackson@westrock.com	Phone Number: 503 772 8700		

Please submit a hard copy and an electronic copy of your application materials

Submit a hard copy of your application and payment to: Oregon DEQ Attn: Business Office 700 NE Multnomah Street Suite 600 Portland, Oregon 97232-4100	**Submit an electronic copy of your application to:** UIC@deq.state.or.us

Call the UIC Permit Coordinator at 503-229-5623 with questions

DEQ will discard oversize (larger than 11" by 17") application documentation

DEQ USE ONLY

Category:

- ☐ 1-Roof Drain
- ☐ 2-Residential
- ☐ 2-Small Parking Lot
- ☐ 2-Industrial/Commercial (Minor-HW)
- ☐ 2-Small Municipality (49 or Less)
- ☐ 3-Large Parking Lot (1000 trips/day)
- ☐ 3-Industrial/Commercial (Mjr HW etc)
- ☐ 3-Large Municipality (50+)
- ☐ Other: _____

Existing Site:

☐ Yes ☐ No UIC Facility Number (if yes): _____

Attachment

H

OTHER REQUIRED PERMITS (NONE REQUIRED)

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Attachment

I

EMERGENCY PROCEDURES

Fire & Police: 911

Emergency Facilities

Name	Address	Number
Kaiser Hospital	10180 SE Sunnyside Rd. Clackamas, OR 97015	503-652-2880

Plant Management & Staff

Name	Position	Number
Wayne Jackson	General Manager	503-593-2956
Gabe Fauvelle	Operations Manager	
Tonya Allison	Office Manager	360-521-1095
Danny Hasley	Plant Supervisor (Days)	503-381-1693
Shawn Ward	Plant Supervisor (Nights)	503-793-0595

Division Management Team

Name	Position	Number
David Schmidt	VP – West Region	314-920-0789
Dennis Niemann	Manufacturing Manager	206-510-0180
DJ VanDeusen	SVP – Recycling	*770-609-0849*
Laurie Hardie	Division Safety Manager	253-218-5606

Corporate

Name	Position	Number
Steve Hamilton	Dir. Env. Affairs	404-307-2865
Don Lewis	DOT Manager	804-349-7941
Jay Small	VP Safety & Health	954-242-2128

Vendors/Utilities

Vendor	Name	Number
Alarm Company	Tyco	800-289-8895
Electrician	Best Electric Portland Industrial	503-319-4169 503-504-3095
Plumber-Sprinkler	Viking	503-227-1171
Plumber-Domestic	Portland Plumbing Plus	503-933-1183
Utility	**Name**	**Number**
Electric Company	PG&E	503-464-7777
Waste Hauler	Republic Services	503-253-5656
Water Department	Portland Water Bureau	503-823-4874

State Agency's

EPA Regional Office	770-326-8142
Local Emergency Planning	503-772-8700
National Response Center	800-424-8802
OSHA Area Office	503-229-5910
OSHA Emergency Hot Line	800-321-6742
Poison Control Center	800-222-1222
State Response Center	800-424-8802

Description of Plant Operations:

Receives, processes and ships multiple grades of recyclable materials.

The material is received from tractor trailers, rolloff bins, compactors, flat beds and route trucks. The material is shipped in containers, vans and flatbeds.

Description of Equipment: Loaders, Forklifts, Skid Steer, Sort Line Baler and Scale.

General Layout: The facility has two structure.

Hazards: Falling Debris and Trip Hazards

Summary of Definitions:

The Emergency Action Plan outlines the procedures for any type of emergency.
The General Manager will immediately proceed to the location to deal with the emergency.

Emergency Notification Tools Fire: Fire Alarm and Two Way Radios

Emergency Notification Tools Natural Disaster: Signal Horn

Emergency Fire Meeting Point: Evacuation Hold Area

Shelter Protection Point: the meeting location for Storm Emergencies.
All employees, contractors and visitors will meet in the Break Room

Roll Call: All employees, contractors and visitors will meet at the Rally Point

Facility Map: Please see attached.

Management Response Team: General Manager

Corporate Management Team: The list of people should be notified immediately when an outside Emergency Response Team is called.

Equipment Shutdown: Employees operating the machine are trained to power down the machine in an emergency, if they can safely do so prior to exiting.

Employee Training Plan
The WestRock facility conducts annual training of the Emergency Response Plan.

Testing of the Emergency Action and Response Plan: The plan will be drilled at least once a year. The plan will be updated whenever regulations, materials, wastes or other conditions warrant an update. The plan will be reviewed annually.

Description of Information to Be Given
1. Your name
2. Your location
3. Description of event
4. Time of event
5. Actions taken to protect human safety and the environment

6. Persons or organizations notified of the event.

Fire Response Procedure

1. As soon as you know there is a fire in the facility, notify the GM via fire alarm or radio.
    a. Report where the fire is located.
    b. Report the material that is on fire.
2. Activate the alarm system by pulling the fire alarm.
3. All trained personnel will respond to only an incipient stage fires.
4. Local Fire Department Number: 911
5. Power down all equipment, if it is safe to do so. Be careful not to exit in haste without ensuring that all moving parts are stopped and all electrical power to the equipment has been turned off.
6. Evacuate the plant through the nearest exit to your position and proceed to the designated Emergency Meeting Point.
8. The General Manager will account for ALL personnel using the following procedure.
    a.) The General Manager will know who is in the facility at all times.
    b.) The General Manager will account for all employees.
    c.) All persons not responding to the roll call will be listed by the General Manager. He will then attempt to determine the location of the missing persons by conversations with employees from his work area and other supervisory personnel. Employees are asked to be aware and account for all co-workers following an emergency. If there is any person who cannot be located, it should be brought to the attention of the Emergency Response Coordinator and/or Emergency Agency responding to the emergency.
9. Do not re-enter the building for any reason until the Fire Department officials give permission.
10. Contact the Division Safety Manager: Jeff Melliere

Medical Response Procedure

1. As soon as you know there is a medical emergency anywhere in the facility, notify the General Manager immediately via radio or cell phone.

    a.) Report where the person is located.
    b.) Report the perceived illness or injury.

2. All employees are trained and will respond with First Aid/CPR/AED

3. If it is treatable First Aid, then the matter is handled on site.

4. If it is determined, Emergency Services needs to be called, dial 911

5. Keep the person comfortable and stable.

6. Make sure someone stays with the person.

7. Send someone to the street to guide Emergency Services into the facility.

8. Contact the Division Safety Manager: Jeff Melliere

Spill Response Procedure

1. Make sure the spilled material does not leave the property through drains or run-off.

2. Notify the General Manager.

3. Obtain the SDS (if available) for the spilled material.

4. Notify the Environmental Services Manager:

WestRock Corporate Environmental Director	Steve Hamilton 404 307 2865

5. List the components on the SDS in the table below.

Component	Density of Material (lbs/gal) (water=8.4)	% Make-up by weight	Total lbs spilled

Use the following formula:

Specified Gravity of Component x Density = mass (lbs/gal)

(Gallons spilled) x (mass lbs/gal) = amount of material *or* (% make-up) / (mass lbs/gal) = material.

6. Refer to the Consolidated Chemical List to determine if the amount of the material spilled exceeds Reportable Quantity.

7. If the spill quantity is greater than the reportable quantity and has left the property, the spill must also be reported to the following agencies.

Agency	Phone Number
Local Emergency Planning Committee	503-772-8700
State Emergency Planning Committee	800-424-8802

8. Write a formal notification of the spill with additional information that might be available.

Earthquake Response Procedure

1. Realize what is happening and secure yourself from falling objects, flying debris and other hazards.

2. Power down ALL equipment if it is safe to do so. Make sure all Emergency Stops on your equipment have been depressed.

3. Look around to determine if there have been any injuries to your coworkers. If so, then remove as much debris from them as possible and start the Medical Emergency Procedure.

4. Evacuate from the building as quickly and safely as possible and meet at the Emergency Meeting Point.

5. The General Manager will account for ALL personnel using the following procedure.

a.) Prior to each shift the General Manager will know who is in the facility at all times by utilizing a roll call sheet from their tailgate meetings.

b.) The General Manager will call out everyone's name on the list.

c.) All persons not responding to the roll call will be listed by the General Manager depending on the shift. He will then attempt to determine the location of the missing persons by conversations with employees from his/her work area and other supervisory personnel. Employees are asked to be aware and account for all co-workers following an emergency. If there is any person who cannot be located, should be brought to the attention of the Emergency Response Coordinator and/or Emergency Agency responding to the emergency.

6. Assess the integrity of the remaining structure. If it is still standing in relatively good condition, then perform the following tasks:

a.) Turn off the gas supply. Be careful of sparks, as the gas line may be ruptured and the area saturated with gas vapors.

b.) Switch the main electrical breakers to the OFF position.

c.) Turn the main water valve off.

7. Make the required notifications to the following people.

8. Contact the Division Safety Manager: Jeff Melliere

Tornado, Hurricane & Winter Storm Response Procedure

1. Realize what is happening and warn coworkers with the signal horns.

2. Power down ALL equipment. Make sure the Emergency Stops on your equipment have been depressed.

3. If safe to do so, proceed to the designated Shelter Protection Rally Point, the maintenance shop.

4. Look around to determine if any injuries have been incurred by your coworkers. If so, make them as comfortable as possible and begin the Medical Emergency Procedure. If their condition allows, evacuate them from the building.

5. When the weather has passed, exit the building via the nearest exit.

6. The General Manager will account for ALL personnel using the following procedure.

a.) The General Manager will know who is in the facility at all times.

b.) The General Manager will check everyone.

c.) All persons not responding to the roll call will be listed by the General Manager. He will then attempt to determine the location of the missing persons by conversations with employees from his/her work area and other supervisory personnel. Employees are asked to be aware and account for all co-workers following an emergency. If there is any person who cannot be located, should be brought to the attention of the Emergency Response Coordinator and/or Emergency Agency responding to the emergency.

7. Assess the integrity of the remaining structure. If it is still standing in relatively good condition, then perform the following tasks:

a.) Turn off the gas supply. Be careful of sparks, as the gas line may be ruptured and the area saturated with gas vapors.

b.) Qualified and Authorized Person, must switch the main electrical breakers to the OFF position.

c.) Turn the main water valve off.

8. Notify the Division Management if needed.

9. Notify the Division Safety Manager if needed: Jeff Melliere

Bomb Threat Response Procedure

1. Call 911

2. Contact a member of the Plant Management Team.

3. Verbally communicate to everyone as quickly as possible to evacuate the plant through the nearest exit and proceed to the Emergency Meeting Point.

CAUTION: The use of cell phones, PA systems and fire alarm systems can cause premature detonation of an electronic blasting cap and should not be used. A verbal communication system should be established. In addition, the static generated from powering down the equipment could also cause a premature detonation. Power down only the equipment that will result in problems, if left running.

4. The General Manager will account for ALL personnel using the following procedure.

a.) Prior to each shift will know who is in the facility at all times.

b.) The General Manager will call out everyone's name on the list.

c.) All persons not responding to the roll call will be listed by the General Manager, depending on the shift. He will then attempt to determine the location of the missing persons by conversations with employees from his work area and other supervisory personnel. Employees are asked to be aware and account for all co-workers following an emergency. If there is any person who cannot be located, should be brought to the attention of the Emergency Response Coordinator and/or Emergency Agency responding to the emergency.

5. Do not re-enter the building for any reason until the Police or Fire Department officials give permission.

6. Contact the Corporate Management Team

Federal Regulatory Standards

- 29 CFR 1910.37 Maintenance, Safeguards, and Operational Features for Exit Routes (exits)
- 29 CFR 1910.38 Emergency Action Plans
- 29 CFR 1910.39 Fire Prevention Plans
- NFPA 101-2000 Life Safety Code
- 29 CFR 1910.119 Process Safety Management of Highly Hazardous Chemicals
- 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response
- 40 CFR Parts 302 and 355 Emergency Planning and Release Notification
- 40 CFR Part 761, especially Section 761.30(a) PCBs in Transformers and 761.125 (PCB spill reporting and response)[Toxic Substances Control Act (TSCA)]
- 40 CFR Part 170 Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (for facilities with workers that apply pesticides in forests or nurseries)
- 40 CFR 262.34(d)(5), 265.16, and Part 265, Subparts C, D & I (RCRA hazardous waste), 273.17 (universal waste), 279.22(d) (used oil), Part 280 (underground storage tanks) [Resource Conservation and Recovery Act (RCRA)]
- 40 CFR Part 68 Chemical Accident Prevention and Clean Air Act (CAA), Section 112(r) (including general duty in 112(r)(1))
- 40 CFR Parts 110 (oil discharge), 112(oil spill prevention), 403 (discharges to public sewers) [Clean Water Act (CWA)]
- 49 CFR Part 170, Subparts G, H & I, and Part 171 [Hazardous Materials Transportation Act (HMTA)]

The sample Emergency Action and Response Plan (SCH-RT-SH-024-1) includes requirements of 29 CFR 1910.38 and 1910.120 as well as the Fire Prevention Plan requirements stated in 1910.39.

Attachment

J

FIRE PREVENTION AND COMPLIANCE

Purpose

The purpose of this program is to provide guidelines for education, training, housekeeping, maintenance and safety procedures for preventing and reacting to fires.

Scope

We expect all employees to help fight a fire in its insipient stage only, to preserve the plant. However, if you are afraid of fire, do not jeopardize yourself or others by attempting to fight the fire.

The first person to notice a fire will make an announcement over the radio stating the location of the fire, indicating what is on fire and instructing anyone near the fire to assist in putting it out.

Once the Shift Lead, Maintenance person or the Safety Coordinator has determined the fire is no longer in the insipient stage, sound the fire alarm. It is imperative that all personnel are notified by radio or in person. The scale clerk must be notified so he/she can relay important information to the Fire Department. Keep your radio with you at all times.

Definitions

Class A Fire: means a fire involving ordinary combustible materials such as paper, wood, cloth, some rubber and plastic materials.
Class B Fire: means a fire involving flammable or combustible liquids, flammable gases, greases and similar materials, and some rubber and plastic materials.
Class C Fire: means a fire involving energized electrical equipment where safety to the employees requires the use of electrically nonconductive extinguishing media.
Class D Fire: means a fire involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium, and potassium.
Dry chemical: means an extinguishing agent composed of very small particles of chemicals such as, but not limited to, sodium bicarbonate, potassium bicarbonate, urea-based potassium bicarbonate, potassium chloride, or monoammonium phosphate supplemented by special treatment to provide resistance to packing and moisture absorption (caking) as well as to provide proper flow capabilities. Dry chemical does not include dry powders.
Dry powder: *means* a compound used to extinguish or control Class D fires.
Extinguisher classification: means the letter classification given an extinguisher to designate the class or classes of fire on which an extinguisher will be effective.
Extinguisher rating: means the numerical rating given to an extinguisher which indicates the extinguishing potential of the unit based on standardized tests developed by Underwriters' Laboratories, Inc.
Fire brigade: (private fire department, industrial fire department) means an organized group of employees who are knowledgeable, trained, and skilled in at least basic fire fighting operations.
Incipient stage fire: means a fire which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus.
Multipurpose dry chemical: means a dry chemical which is approved for use on Class A, Class B, and Class C fires.

Small hose system: means a system of hose ranging in diameter from 5/8" (1.6 cm) up to 1½" (3.8 cm) which is for the use of employees and which provides a means for the control and extinguishment of incipient stage fires.

Standpipe Systems.

- *Class I standpipe system* means a $2^{1/2"}$ (6.3 cm) hose connection for use by fire departments and those trained in handling heavy water streams.
- *Class II standpipe system* means a $1^{1/2"}$ (3.8 cm) hose system which provides a means for the control or extinguishment of incipient stage fires.
- *Class III standpipe system* means a combined system of hose which is for the use of employees trained in the use of hose operation and which is capable of furnishing effective water discharge during the more advanced stages of fire (beyond the incipient stage) in the interior of workplaces. Hose outlets are available for both 1 ½" (3.8 cm) and 2 ½" (6.3 cm) hose.

Supervised System: means a fire detection system that contains signals or sensors that notifies employees when it is not working properly.

Common Workplace Fire Hazards

A. Ignition Sources

1. Sparks from equipment striking the ground.
2. Cigarettes, pipes, or cigars from employees or vendors.
3. Equipment malfunctions.
4. Welding

B. Combustibles

Hazard	Responsibilities	Mitigation
Stored Paper	Rolling Stock Operators	Spacing and height limits
Stored Plastic	Rolling Stock Operators	Spacing and height limits
Liquid Propane	Maintenance	Spacing and height limits
Diesel Tanks	Everyone/Operators	Inspections, barriers

Baled paper, plastics, gases and miscellaneous chemicals stored on site pose fire hazards. When possible, all flammable chemicals or products should be stored in fireproof cabinets to minimize their exposure to fire and/or explosions.

Paper

Paper is the most common fire hazard in a majority of WestRock facilities. Paper is transported, stored, and used in rolls, stacks, and bales. Paper stored in large warehouses should be subdivided to reduce the amount of stock that could be affected by a single fire. Rolled paper should be stored upright or on end. Paper stored on end "peels" as it burns and circles the roll of paper, burning each layer one at a time. Stacks or columns that are spaced less than 4 inches apart tend to be the most effective.

Baled paper is stored in solid piles where fires can burrow. When paper is finely shredded, fire can flash over the surface of the bales. When baled paper becomes wet from fire hoses or extinguishers, it becomes soggy and difficult to handle. The integrity of the bales slowly disappears, making removal of burning bales difficult.

Combustible Dust

Combustible dust is an underlying problem because of the paper dust created from baling material. Combustible Dust fires are slow to develop and can spreadsheet via beams in a facility making it hard to see, control and put out.

Plastic

Plastic produces twice the amount of heat per unit of weight as wood, paper, or cloth. Typically, plastics fires are slow to develop and water is used to extinguish the fire. In large, well-established plastic fires, air combustion is limited by "buttoning up" (closing) the building. The sprinklers then control the fire, for hours if necessary, before the fire department arrives.

Gas

Liquefied petroleum (LP) gas stored in containers inside a facility should not be a large quantity. When 500 pounds or more of LP gas containers are stored outside, they should be stored 10 feet away from the building. In a compressed gas cylinder, the gas is in a completely gaseous state and under extreme pressure. For both types of cylinders, an explosion can result when ignited or exposed to extreme heat. Controlling ignition sources is the most important safeguarding principle for gas cylinders.

Portable Fire Extinguishers

The following table describes each class of portable fire extinguisher and the maximum distances each type of fire extinguisher should be located from a potential fire.

General Requirements

Each facility is required to have portable fire extinguishers available for the types of fire that could occur on site.

The extinguishers should:

1. Be approved by a recognized testing laboratory.
2. Have affixed labels that state the specific fire classes and sizes the extinguisher is equipped for.
3. Be located as close to the potential fire source as possible, but not so close as to limit access or damage the extinguisher or cause injury to employees in the event of a fire.
4. Be mounted, located, and identified so that they are readily accessible to employees.
5. Be maintained in a fully charged and operable condition.
6. Be kept in their designated places at all times except during use.
7. Not contain carbon tetrachloride or chlorobromomethane extinguishing agents.

   Remove from service all soldered or riveted shell self-generating soda acid or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent.

Class	Description	Label Identification	Maximum Distance from Source
Class A	Used on wood, cloth, paper, cardboard, and most plastics (combustibles) fires	Triangle "A"; green triangle	No further than 75 feet
Class B	Used on flammable or combustible liquid, grease, gasoline, kerosene, and oil fires	Square "B"; red square	No further than 50 feet
Class C	Used on energized electrical equipment fires	Circle" "C"; blue circle	Base upon appropriate pattern for existing Class A or B hazards
Class D	Used on combustible metals fires; includes metal powders, flakes, shavings, or similarly sized products that are generated at least once every two weeks	5 point star "D"; yellow star	No further than 75 feet

NOTE: Uniformly spaced standpipe systems or hose stations with hoses no larger than 1.5 inches in diameter connected to a sprinkler system can be installed for emergency use by employees instead of Class A portable fire extinguishers. Common fire extinguishing agents include water, carbon dioxide, dry chemical, multi-purpose dry chemical, Halon 1301, and Halon 1211. The following is a brief description of the advantages and disadvantages of each.

Extinguisher Agent	Advantages	Disadvantages
Water	Removes heat, effective on Class A fires, inexpensive, abundant, non-toxic	Conducts electricity, may spread Class B fires, freezes in cold climates, may carry pollutants
Carbon Dioxide	Reduces oxygen to less than 15%, effective on Class B and C fires, no residue, relatively inert	Less than 35% concentration by volume is required for total flooding systems, toxic to humans at less than 4% volume, ineffective on deep smoldering fires, dissipates rapidly and could allow reflash, cools electronic components, collects in low areas
Dry Chemical	Interrupts chemical reactions, sodium bicarbonate (baking soda), very effective on Class B and C fires	Leaves a residue, obscures vision, ineffective on deep-seated Class A fires, absorbs moisture, cakes container, irritating to skin, nozzle pressure can cause burning liquids to splash
Multi-Purpose Dry Chemical	Interrupts chemical reactions, effective on Class A, B, and C fires, non-conductive	Obscures vision, more irritating than ordinary dry chemicals, nozzle pressure can cause burning liquids to splash
Halon 1301	Interrupts chemical reactions, effective on Class A, B, and C fires, not acutely toxic, no residue, no chilling effect on electronic parts and components	Acutely toxic by volume delayed effects and effects of chronic exposure not well known, toxic decomposition products are generated by fire.
Halon 1211	Interrupts chemical reactions, effective on Class A, B, and C fires, no residue, may be sprayed (boiling point = 25 degrees F), used in portable fire extinguishers	Acutely toxic at >4% by volume (dizziness, impaired coordination and cardiac effects), must be used at >5% by volume, toxic decomposition products are generated by fire, vapor density = 5.7 (collects in pit and low areas), ozone depleting compound.

Inspection and Maintenance

Each facility is responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.

Extinguishers should:

1. Be visually inspected monthly. All inspections should be documented using the form or one similar to the sample form contained in Appendix B.
2. Be subjected to an annual maintenance check. Stored pressure extinguishers do not require an internal examination. The annual maintenance date shall be recorded and retained for one year after the last entry or the life of the shell, whichever is less. The record should be available to OSHA upon request.
3. Be emptied and subjected to applicable maintenance procedures every 6 years, for stored pressure dry chemical extinguishers that require a 12-year hydrostatic test only. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.
4. Have alternate equivalent protection provided when portable fire extinguishers are removed from service for maintenance and recharging.

Hydrostatic Testing

Most facilities hire a qualified contractor to perform hydrostatic tests on portable fire extinguishers. These contractors have extinguisher knowledge, certifications and the proper equipment needed to conduct the tests. If you use a contractor to perform these tests, obtain documentation on the hydrostatic tests conducted on each fire extinguisher for your files.

If tests are performed on site, the facility should assure that employees are properly trained on hydrostatic testing including the use of suitable testing equipment. Testing should be performed on portable fire extinguishers at the intervals listed in following table:

Type of Extinguisher	Test Interval in years
Dry chemical with stainless steel	5
Carbon Dioxide	5

Footnote (1) extinguishers having shells constructed of copper or brass joined by soft solder or rivets should not be hydrostatically tested and should have been permanently removed from service by 01/01/82.

Hydrostatic testing must be performed for the following conditions:

1. When the unit has been repaired by soldering, welding, brazing, or use of patching compounds.
2. When the cylinder or shell threads are damaged.
3. When there is corrosion that has caused pitting, including corrosion under removable name plate assemblies.
4. When the extinguisher has been burned in a fire.
5. When a calcium chloride extinguishing agent has been used in a stainless steel shell.
6. Whenever portable fire extinguishers show new evidence of corrosion or mechanical injury.

7. On all extinguisher hose assemblies which are equipped with a shut-off nozzle at the discharge end of the hose. The test interval shall be the same as specified for the extinguisher on which the hose is installed.
8. Carbon dioxide hose assemblies with a shut-off nozzle are to be hydrostatically tested at 1,250 psi (8,620 kPa).
9. Dry chemical and dry powder hose assemblies with a shut-off nozzle are to be hydrostatically tested at 300 psi (2,070 kPa).

In addition to an external visual examination, an internal examination of cylinders and shells to be tested should be completed prior to the hydrostatic tests.

Hose assemblies passing a hydrostatic test do not require any type of recording or stamping.

Hose assemblies for carbon dioxide extinguishers that require a hydrostatic test must be tested within a protective cage device.

Carbon dioxide extinguishers and nitrogen or carbon dioxide cylinders used with wheeled extinguishers must be tested every 5 years at 5/3 of the service pressure as stamped into the cylinder. Nitrogen cylinders which comply with 49 CFR 173.34(e)(15) may be hydrostatically tested every 10 years.

Stored pressure and Halon 1211 types of extinguishers must be hydrostatically tested at the factory test pressure not to exceed two times the service pressure.

Acceptable self-generating type soda acid and foam extinguishers must be tested at 350 psi (2,4310 kPa).

Air or gas pressure may not be used for hydrostatic testing.

Extinguisher shells, cylinders, or cartridges which fail a hydrostatic pressure test, or which are not fit for testing shall be removed from service and from the workplace.

Each facility should maintain and provide upon request to OSHA evidence that the required hydrostatic testing of fire extinguishers has been performed by the required deadline. The testing record should have the date of the test, the signature of the person who performed the test and the serial number, or other identifier, of the fire extinguisher that was tested. Such records should be kept until the extinguisher is hydrostatically retested at the required time interval or until the extinguisher is taken out of service, whichever comes first.

Standpipe and Hose System

This section applies to all small hose, Class II, and III fire standpipe systems and does not apply to Class I systems. (Class I standpipe systems are designed for fire departments hook-up only.) Only 1 1/2 inch (3.8 cm) or smaller diameter hoses are permitted to be used without having formal fire brigade training as outlined in 29 CFR 1910.156(c). If hoses are available for employee use, employees must be trained annually on their proper use.

Standpipes should be located or otherwise protected against mechanical damage. Damaged standpipes should be repaired promptly. Reels or cabinets should be designed to facilitate prompt use of the hose valves, the hose, and other equipment at the time of a fire or other emergency. Reels and cabinets should be conspicuously identified and used only for fire equipment.

Hose, Hose Outlets and Connections

Standpipe hose outlets and connections should be:

1. Located high enough above the floor to avoid being obstructed and to be accessible to employees.
2. Provided with standardized screw threads or appropriate adapters.
3. Compatible with those used on the supporting fire equipment.
4. Equipped with a connected hose that is ready for use for every 1 1/2 inch (3.8 cm) or smaller hose outlet. (In extremely cold climates where such installation may result in damaged equipment, the hose may be stored in another location provided it is readily available and can be connected when needed.)

Standpipe and hose systems should provide 100 gallons per minute (6.3 L/s) for a period of at least 30 minutes and should be:

- Equipped with lined hose if installed after January 1, 1981, (Unlined hose may remain in use on existing systems but should be replaced when it becomes unserviceable with a lined hose.)
- Of such a length that water flowing through the hose should not have friction loss that decreases the pressure at the nozzle below 30 psi (210 kPa), (The dynamic pressure at the nozzle should be within the range of 30 psi (210 kPa) to 125 psi (860 kPa).) and
- Equipped with shut-off type nozzles.

Acceptance Tests

The piping of Class II and Class III systems installed after January 1, 1981, including yard piping, should be hydrostatically tested for at least 2 hours at not less than 200 psi (1380 kPa), or at least 50 psi (340 kPa) in excess of normal pressure when such pressure is greater than 150 psi (1030 kPa).

The hoses on all standpipe systems installed after January 1, 1981, should be hydrostatically tested with couplings in place, at a pressure of not less than 200 psi (1380 kPa), before it is placed in service. This pressure should be maintained for at least 15 seconds and not more than 1 minute during which time the hose should not leak and any jacket threads should not break during the test.

Maintenance of Standpipe and Hose Systems

Standpipe and hose systems are required to be hydrostatically tested before being placed into service. Hose systems should be inspected at least annually and after each use to assure that all of the equipment and hose are in place, available for use, and in working condition.

Maintenance activities for these systems include:

1. Water supply tanks are to be kept filled except during repairs. If used, pressure tanks should maintain pressure at all times.
2. Valves in the main piping connections to the automatic water supply sources should always be kept fully open except during repairs.
3. Any portion of the system in need of service should be removed immediately and replaced with equivalent protection during repair.
4. Hemp or linen hoses shall be un-racked, inspected, for deterioration, and re-racked using a different fold pattern at least annually. Defective hose should be replaced.
5. A trained person should be designated to conduct standpipe inspections.

NOTE: If facility employees are not permitted or properly trained to use hoses, a sign should be placed on each hose stating, "For Fire Department Use Only".

Automatic Sprinkler Systems

In nearly all situations, the most effective and reliable fire prevention method is utilizing a properly designed and installed automatic sprinkler system. The fire sprinkler system detects the fire, sounds an alarm, and puts water where the fire and heat are located. Systems installed purely for property protection are not discussed in this section. All hydraulically designed automatic sprinkler systems should be identified and included in the plan.

Automatic sprinkler systems should:

1. Provide the necessary discharge patterns, densities, and water flow characteristics for complete coverage. Only U.L. Listed and FM Global approved equipment and devices should be used.
2. Be properly maintained and a main drain flow test should be performed quarterly.
3. Have proper acceptance tests conducted and documented for systems installed after January 1, 1981. A proper acceptance test includes:
    - Flushing of underground connections
    - Hydrostatic tests of system piping
    - Air tests in dry-pipe systems
    - Dry-pipe valve operation
    - Tests of drainage facilities
4. Provide at least 1 automatic water supply that is capable of providing water for at least 30 minutes, (An auxiliary water supply should be provided when the automatic water supply is out of service, except for systems with 20 or fewer sprinklers. The facility may install hose connections for firefighting use to wet pipe sprinkler systems provided the water supply satisfies the combined design demand for sprinklers and standpipes.)
5. Have pipes protected from freezing and corrosion, which ensures the life of the sprinkler system.
6. Have all dry sprinkler pipes and fittings installed so that the system can be totally drained, (Periodically the pipes and fittings will be drained to ensure that corrosion does not build up in the line interior.)
7. Only use approved sprinklers, (All sprinkler heads should be protected from mechanical damage and cannot be substituted without a complete engineering review of the altered system part.)
8. Provide a local water flow alarm for sprinkler systems that have more than 20 sprinklers, (This alarm should be audible and sound when water flows through the system with a flow rate equal to that of a single sprinkler.)
9. Have proper sprinkler spacing. (Interference or overlap of the sprinkler spray patterns should be kept to a minimum. The vertical clearance should be at least 18 inches from the bottom of the sprinkler head to any below material. This allows water to penetrate a larger area.)

Fixed Extinguishing Systems

Fixed fire extinguishing/suppression systems are commonly used to protect areas containing valuable or critical equipment such as data processing rooms, telecommunication switches, and process control rooms. Their main function is to quickly extinguish a developing fire and alert occupants before extensive damage occurs by filling the protected area with a gas or chemical extinguishing agent. Fixed extinguishing components and agents should be designed and approved for the specific fire hazards they control. Systems installed purely for property protection are not discussed in this section.

If the system becomes inoperable, the facility should notify employees and take the necessary precautions to assure their safety until the system is restored to operating order.

Alarms and other effective safeguards should also be provided to warn employees against entry into discharged areas where the atmosphere remains hazardous to employee safety or health. Hazard warning or caution signs should be posted at the entrance to, and inside of, areas protected by systems that use agents in hazardous concentrations.
Fixed sprinkler systems should:

1. Be inspected annually by a person knowledgeable in the design and function of the system.
2. Have the weight and pressure of refillable containers and the weight of non-refillable containers checked at least semi-annually, (If a refillable container shows a loss in pressure of more than 10 percent, it should be serviced. If a non-refillable container shows a loss in net weight of more than 5 percent, it should be replaced. All inspection and maintenance dates should be recorded on the container, on a tag attached to the container, or in a central location. A record of the previous semi-annual inspection should be maintained until the container is inspected again or for the life of the container, whichever is less.)
3. Not use chlorobromomethane or carbon tetrachloride as an extinguishing agent where employees may be exposed.
4. Be constructed of non-corrosive material or otherwise protected against corrosion when installed in a corrosive atmosphere.
5. Be designed for and installed in areas with climate extremes and should operate effectively at the expected extreme temperatures.

Each facility should provide/identify:

- At least one manual station for discharge activation of each fixed extinguishing system,
- Manual operating device hazards and provide protection to employees,
- The use of the PPE needed for immediate rescue of employees trapped in hazardous atmospheres created by an agent discharge,
- An emergency action plan in accordance with 29 CFR 1910.38 for each area within a workplace that is protected by a total flooding system that provides agent concentrations exceeding the maximum safe levels, and
- Automatic actuation of total flooding systems by an approved fire detection device installed and interconnected with a pre-discharge employee alarm system to give employees time to safely exit from the discharge area prior to system discharge.

OSHA also requires that employees designated to inspect, maintain, operate, or repair fixed extinguishing systems should be trained annually to keep them up-to-date in the functions they perform. Automatic detection equipment is required to be approved, installed and maintained. Systems installed in areas where employees cannot enter during or after the system's operation are exempt from these requirements.

If the dry chemical discharge has the possibility of obscuring vision an alarm is required to be installed. This alarm will allow employees a safe period of time to exit the area before discharge of the dry chemical system occurs.

OSHA requires that the dry chemical be sampled at least once a year. This is to ensure that there is no moisture building up inside the dry chemical storage device. Moisture will cause the chemical to cake and/or form lumps that can weaken its effectiveness. The rate of dry chemical application should be reached within 30 seconds of the initial discharge.

If used, dry chemical agents must:

- Be compatible with any foams or wetting agents that could be used with them.

- Not be mixed together.
- Have only the dry chemical stated on the nameplate of the chemical holding device.

Training

Employees should be trained on portable fire extinguisher usage and incipient stage fire hazards. Each facility should provide the education upon initial employment and at least annually thereafter. Employees who have been designated to use firefighting equipment, as part of an Emergency Action Plan, should be trained in the use of the appropriate equipment. Training on the use of fire extinguishers and firefighting equipment should include hands on training with site specific equipment.

Individual Fire Fighting Responsibilities:

Baler Operator

- Shut down all electrical power switches in the baler.
- Ensure employees at the rear dock are notified, via radio or in person.
- Respond to the scene of the fire.

Front-End Loader Operator

- Park Front-End-Loader away from the fire.
- Turn off emergency valves to the fuel storage tanks.
- Keep the scale clerk informed on the status of the fire.
- Respond to the scene of the fire.

Forklift

- Release all dock locks from the trailers, so the trucks can leave, if safe to do so.
- Escort any customers and other non WestRock employees to the exit gate.
- Respond to the scene of the fire.
- Direct the emergency response vehicles to the scene of the fire.

Sorters

- Shut down the equipment on the sort line.
- Respond to the scene of the fire.

Maintenance

- Direct the fire fighting operations until the Operation Manager or General Manager arrives.
- Will assure the above ground diesel fuel storage tank is protected from the fire source. Spray with water if the fire is nearing the tank.
- Respond to the scene of the fire.

Operations Manager

- Direct fire fighting operations until relieved from the fire department. Take roll call.
- Weight Master
- Will relay communication to the Fire/Police Department/Security

Fire Response Outline

1. Remember the buddy system. Everyone is to make sure that fellow employees in the area have heard the fire alarm or verbal notification.
2. The Maintenance person or the Shift Lead will be in charge until the Operations Manager or General Manager arrives at the scene.
3. Respond to the scene with a fire extinguisher carrying it with two hands. Do not run at any time, running will usually result in an injury.
4. Our job is to try and control the fire and keep it from spreading. If the fire can be safely extinguished then do so. At no time shall any employee put himself or herself in jeopardy by trying to be a hero. The fire department personnel are professionally trained to extinguish the fire.
5. If the fire is out of control or the fire department is on the scene, then all employees must gather by the scale for a headcount.

6. Do not leave the premises or the evacuation staging area unless given authorization to do so. It is important that we know of your whereabouts at all times so no one will put himself/herself in jeopardy trying to locate you.
7. Moving the burning material with the front end loader is to be done only at the direction of the Operations Manager, Shift Lead, Maintenance or the fire department. Moving non-burning material away from the fire is done, only if safe to do so.
Use your best judgment, before pushing the burning material away from either the building or other non-burning material. Remember by pushing the material, the fire could spread more quickly.

Fire Related Potential Explosions, Fire Sources & Toxic Chemical Releases
1. Diesel fuel is stored in an above ground tank.
2. Hydraulic fuel tanks on the baler.
3. Diesel fuel in lift trucks, front end loaders, and any trucks that can be on the property.
4. Gasoline in the employee vehicles.
5. Gasoline found in the welder, pressure washer; weed eater tanks and individual gallon fuel cans.

Potential or Likely Fire Sources & Scenarios
1. Paper either baled or loose stored throughout the facility and in trailers at the docks or in the trailer lot.
2. Plastic either baled or loose stored throughout the facility.
3. Fires could potentially start from engines in the lift trucks, front end loaders or trucks overheating igniting paper dust, oil or grease.
4. Fires could potentially start from paper, cardboard or other recyclable materials coming in contact with very hot exhaust pipes, mufflers, and/or catalytic converters found in passenger vehicles and commercial trucks.
5. Fires could potentially start from shredding trucks unloading with the walking floor. The shredding trucks will sometimes shred metal such as staples, clips, binders etc. these could spark during the shredding process and then smolder inside of loose shredded paper in the bed of the truck. Once the smoldering is exposed to the air, fires could flame up.
6. Fires could potentially start from routine maintenance activities such as welding, cutting, burning and grinding.
7. Fires could start electronically from equipment shorting out, electric motors burning from dust accumulation or transformers shorting out.
8. Fires could start from improper handling techniques such as pushing bales on the floor causing the wires to spark, pushing pallets, causing friction between the wood and the concrete or asphalt.
9. Fires could start from the front-end loader buckets and lift truck attachments scrape the ground causing sparks or roll off bin equipment when being emptied could cause sparking as the bin hit the concrete or asphalt.
10. Fires could start from foreign objects in the recyclable materials being crushed or scrapped against the concrete or asphalt or even inside the baler.
11. Fires could start from smoking materials if either employees, suppliers, truck drivers, or other visitors violate the "No Smoking" policy at the facility.
12. Fires could start from office equipment such as printers, computers, floor heater, etc. shorting out.

Potential Release of Toxic Chemical During a Fire

1. Diesel fuel, hydraulic fuel, and gasoline are petroleum based products will give off vapors that could be irritating when burned. Fire fighters are required to wear SCBA's (self contained breathing apparatus) when in close proximity to the source of the flames.
2. All plastic grades will give off irritating vapor when burned. Fire fighters are required to wear SCBA's when in close proximity to the source of the flames.

Other

1. It takes a lot of heat to ignite the various plastic grades but caution should be taken once they do ignite since the plastic will add increasingly to the intensity of the fire and the material will become molten and plastic ash will become airborne.
2. Hydraulic oil and diesel fuel will flow to lower points and will continue to burn when flowing. Extreme care must be taken to prevent the burning liquid from flowing into the storm sewers. If possible to do so safely, try to build dikes with oil absorbent sand or place bales in the path of the flow to prevent entry into the storm sewers.
3. All materials located on the facility grounds if on fire, can be extinguished safely with water and chemical fire rates of ABC. Caution must be taken not to spread the fire with the pressure of the fire hose stream.

Viking Automatic Sprinkler Co.
3245 NW Front Avenue
Portland, OR 97210

Phone: 503-227-1171 Fax: 503-227-1552
vikingsprinkler.net

Report of Inspection, Testing & Maintenance of Automatic Fire Sprinkler Systems

"Inspection, testing and maintenance of the sprinkler system is in accordance with procedures meeting those established in the most current edition of NFPA 25 Standard and in accordance with the manufacturer's instructions. NFPA 25 establishes minimum requirements and assumes that the design and installation of the fire protection systems are in accordance with the applicable local and NFPA standards in effect at the time of the installation. This is not an evaluation to conclude that the hazard being protected is more severe than originally designed, that the system is improperly installed or if the design or installation deficiency results in inadequate protection.

The scope of the inspection work may vary depending on the agreement in place for this specific property."

PROPERTY NAME: WESTROCK
PROPERTY ADDRESS: 6328 SE 100TH AVENUE
CITY, STATE, ZIP: PORTLAND, OREGON 97266
INSPECTORS NAME: JOSH NORDWELL CERTIFICATION #: 5683
JOB NUMBER: OPI-8329 DATE OF INSPECTION: 4/16/18

☐Annual ☒Semi-Annual ☐Quarterly ☐Monthly ☐5 Year

TYPE OF SPRINKLER SYSTEM & QUANTITY OF EACH?

_____ WET 1 DRY _____ PREACTION _____ DELUGE _____ STANDPIPE

SPRINKLER COVERAGE?

X ENTIRE _____ PARTIAL _____ BASEMENT _____ EGRESS

IS THE BUILDING OCCUPIED? YES ☒ NO ☐

MONITORED BY CENTRAL STATION? YES NAME OF MONITORING COMPANY? TYCO

1. GENERAL

	YES	N/A	NO
a. Hydraulic nameplate for hydraulically designed system attached securely to riser & legible? If yes, see page 6.	☒	☐	☐
b. Sprinkler piping free of items resting on the pipe or being hung from the pipe?	☒	☐	☐
c. Pipe and fittings in good condition and free of mechanical damage, leakage, and corrosion?	☒	☐	☐
d. Hangers and seismic bracing not damaged or loose?	☒	☐	☐
e. Prior to the onset of freezing weather, were all accessible areas of the building inspected to verify adequate heat (at or above 40°F) to prevent water filled sprinkler piping from freezing?	☒	☐	☐
f. Antifreeze system tested? If yes, see page 6.	☐	☒	☐
g. Prior to the onset of freezing weather, were low points drained in dry pipe, preaction and deluge systems?	☒	☐	☐
h. Are all gauges in good condition?	☒	☐	☐
i. Are all gauges on the system showing normal pressures?	☒	☐	☐

2. SPRINKLERS	YES	N/A	NO
a. Heads free from paint, corrosion, foreign materials and physical damage?	☐	☐	☒
b. Proper sprinkler orientation?	☒	☐	☐
c. Proper clearances maintained below all heads?	☒	☐	☐
d. Proper number and type of spare heads available in cabinet?	☒	☐	☐
e. Sprinkler wrench(s) available for each type of head?	☒	☐	☐
f. Any heads manufactured prior to 1920? If yes, heads shall be replaced.	☐	☒	☐
g. Any heads in service for more than 75 years? If yes, replace or test representative samples at 5 year intervals.	☐	☒	☐
h. Any heads in service for more than 50 years? If yes, replace or test representative samples at 10 year intervals.	☐	☒	☐
i. Any fast-response heads in service for more than 20 years? If yes, replace or test representative samples at 10 year intervals.	☐	☒	☐
j. Any dry heads in service for more than 10 years? If yes, replace or test representative samples at 10 year intervals.	☐	☒	☐
k. Any solder-type heads with extra-high temperature classification (or higher), exposed to maximum allowable temperatures? If yes, test at 5 year intervals.	☐	☒	☐

3. ALARM DEVICES	YES	N/A	NO
a. Inspected and free of physical damage?	☒	☐	☐
b. Waterflow devices tested?	☒	☐	☐
c. Supervisory signal devices tested?	☒	☐	☐

4. VALVES, GENERAL	YES	N/A	NO
a. Are all valves properly labeled? (main drain, control valve, inspector's test, etc.)	☒	☐	☐
b. Are valves accessible?	☒	☐	☐
c. Are all valves in their normal open or closed position and free of physical damage?	☒	☐	☐
d. Normally open control valves secured by means of a seal or lock, or electrically supervised?	☒	☐	☐
e. Normally closed control valves secured by means of a seal or electrically supervised?	☐	☒	☐
f. Valves free from external leaks?	☒	☐	☐
g. Operating stems of outside screw and yoke valves lubricated?	☒	☐	☐
h. Has each control valve been operated through its full range and returned to it's normal position?	☒	☐	☐
i. Main drain test conducted at each water-based fire protection system riser? If yes, see page 6.	☒	☐	☐
j. Partial flow test conducted on pressure reducing valves and relief valves? If yes, see PRV test attachment.	☐	☒	☐
k. Full flow test conducted on each master pressure reducing valves?	☐	☒	☐

5. PREACTION VALVES AND DELUGE VALVES (If applicable, see preaction attachment)	YES	N/A	NO
a. Valve enclosures equipped with low temp alarms inspected?	☐	☒	☐
b. Low temperature alarms, if installed in valve enclosures, inspected and tested?	☐	☒	☐
c. Low air pressure alarms tested?	☐	☒	☐

5. PREACTION VALVES AND DELUGE VALVES (continued)	YES	N/A	NO
d. Gauges that monitor the detection system pressure, if provided, testing to verify normal pressure is being maintained?	☐	☒	☐
e. Priming water level in supervised preaction system tested?	☐	☒	☐
f. Preaction valve trip tested with the control valve partially open?	☐	☒	☐
g. Deluge valve trip tested at full flow in warm weather and in accordance with the manufacturer's instructions?	☐	☒	☐
h. Inspection of preaction or deluge valve interior and the condition of detection devices when trip conducted?	☐	☒	☐
i. Automatic air pressure maintenance devices tested at time of preaction or deluge valve trip test?	☐	☒	☐
j. Manual actuation devices operated?	☐	☒	☐

6. DRY PIPE VALVES/QUICK OPENING DEVICES (If applicable, see page 6)	YES	N/A	NO
a. Valve enclosures equipped with low temp alarms inspected?	☐	☒	☐
b. Low temperature alarms, if installed valve enclosures, inspected and tested?	☐	☒	☐
c. Low air pressure alarms tested?	☒	☐	☐
d. Priming water tested?	☒	☐	☐
e. Are all gauges indicating proper pressures and ratios?	☒	☐	☐
f. Each dry pipe valve trip tested in warm weather with control valve partially open?	☒	☐	☐
g. Dry pipe valve interior inspected when trip test conducted?	☒	☐	☐
h. Was the interior of the dry pipe valve cleaned thoroughly, and parts repaired or replaced as necessary?	☐	☒	☐
i. Automatic air pressure maintenance devices tested at time of dry pipe valve trip test?	☐	☒	☐
j. Quick-opening devices, if provided, tested?	☒	☐	☐

7. WATER STORAGE TANKS	YES	N/A	NO
a. Exterior inspection of tank, supporting structure, vents, foundation, catwalks or ladders?	☐	☒	☐
b. Exterior painted, coated, or insulated surfaces of the tank and supporting structures inspected for signs of degradation?	☐	☒	☐
c. Expansion joints inspected?	☐	☒	☐
d. Tank full or at the designated water level?	☐	☒	☐
e. High and low water level alarms tested?	☐	☒	☐
f. Automatic tank fill valves inspected and tested?	☐	☒	☐
g. Strainers cleaned?	☐	☒	☐
h. Water temperature checked and maintained at or above 40°F?	☐	☒	☐
i. Heating system inspected and tested?	☐	☒	☐
j. Low water temperature alarms tested?	☐	☒	☐
k. High water temperature limit switches on tank heating system tested when heating system is in service?	☐	☒	☐
l. Air pressure in pressure tank inspected?	☒	☐	☐

8. FIRE DEPARTMENT CONNECTIONS	YES	N/A	NO
a. Visible and accessible?	☒	☐	☐
b. Couplings or swivels not damaged and rotate smoothly?	☒	☐	☐

8. FIRE DEPARTMENT CONNECTIONS (continued)	YES	N/A	NO
c. Plugs or caps in place and undamaged?	☒	☐	☐
d. Gasket in place and in good condition?	☒	☐	☐
e. Identification signs in place?	☒	☐	☐
f. Check valve(s) not leaking?	☒	☐	☐
g. Automatic drain valve in place and operating properly?	☒	☐	☐
h. Clapper(s) in place and operating properly?	☒	☐	☐

9. HOSE STATIONS	YES	N/A	NO
a. Nozzle(s) inspected to verify waterway is clear of obstructions, and all parts operate correctly and are undamaged?	☐	☒	☐
b. Hose valves inspected and caps in place if necessary?	☐	☒	☐
c. Was the hose removed, inspected and returned to the correct stored position?	☐	☒	☐
d. Hose record maintained or tag fastened correctly with complete information?	☐	☒	☐
e. Are all hoses/lined? If not, the hose shall be replaced with a lined fire hose.	☐	☒	☐
f. What date was the hose manufactured?			
g. When was the hose last service tested? Test 5 years from date of manufacture and every 3 years thereafter (or replace hose every 5 years).	☐	☒	☐

10. 3 YEAR REQUIREMENTS	YES	N/A	NO
a. **Hose Valves on Hose Stations:** Tested by opening and closing?	☐	☒	☐
b. **Preaction Valves:** Trip tested with control valve fully open?	☐	☒	☐
c. **Water storage tanks without corrosion protection (unlined):** Internal inspection performed?	☐	☒	☐
d. Was a full trip performed on the dry system?	☐	☒	☐

11. 5 YEAR REQUIREMENTS	YES	N/A	NO
a. Internal inspection of piping and branch line conditions?	☐	☒	☐
b. Have all gauges been tested, calibrated or replaced?	☐	☒	☐
c. Internal inspection performed on check valves?	☐	☒	☐
d. **Preaction and Deluge valves:** Internal inspection and maintenance performed on valves that can be reset without removal of a faceplate? If applicable, see Preaction & Deluge attachment.	☐	☒	☐
e. **Dry pipe valves/quick opening devices:** Internal inspection performed on strainers, filters, and restricted orifices? If applicable, see page 7.	☐	☒	☐
f. **Pressure reducing valves and relief valves:** Full flow test performed on each valve? If applicable, see PRV test attachment.	☐	☒	☐

DEFICIENCIES FOUND DURING INSPECTION:

2-A) DUE TO THE ENVIRONMENT, MOST HEADS ARE LOADED WITH DUST & COBWEBS.

DEFICIENCIES CORRECTED:

NOTES:

*RISER ROOM IS IN NEED OF CLEANING. IT HAS RAT FECES EVERYWHERE AND A STRONG ODOR. WAYNE JACKSON WILL BE CLEANING IT ON A WEEKLY BASIS FROM NOW ON.

HAS THE BUILDING OWNER/REPRESENTATIVE BEEN NOTIFIED OF ANY DEFICIENCIES?

YES ☒ NO ☐

IF YES, WHO WAS NOTIFIED? WAYNE JACKSON

IF NO, WHY WAS THE OWNER/REPRESENTATIVE NOT NOTIFIED?

HYDRAULIC DESIGN INFORMATION

SYSTEM	DENSITY – GALLONS	AREA - FEET
DRY	.17	3900

ANTIFREEZE TEST

ANTIFREEZE TYPE	FREEZING TEMP / SOLUTION	FREEZING TEMP CORRECT?
N/A	°	
	°	
	°	
	°	
	°	
	°	
	°	
	°	
	°	

MAIN DRAIN TEST

SYS. #	MAKE, MODEL & YEAR	LOCATION	SIZE OF PIPE	STATIC	RESIDUAL	RESUME
DRY	RELIABLE D 1993 6"	RISER ROOM N. END	2"	105	70	85

FORWARD FLOW TEST

SYSTEM	TYPE	STATIC	FLOW	GPM
N/A				

DRY PIPE TRIP TEST

	SYSTEM #1	SYSTEM #	SYSTEM #	SYSTEM #
Size, make, model & year of manufacture	RELIABLE MOD D 1993 6"			
Controls sprinklers in?	ALL			
Pressure (lb) Air	34			
Before test Water	105			
Control valve wide open?	NO			
If not, how many turns?	3			
Operated at: Air Pressure (lb)	31			
Time (min., sec.)	:18			
Operation: Satisfactory, Partly Satisfactory or failed?	☒ Satisfactory ☐ Partly Sat. ☐ Failed	☐ Satisfactory ☐ Partly Sat. ☐ Failed	☐ Satisfactory ☐ Partly Sat. ☐ Failed	☐ Satisfactory ☐ Partly Sat. ☐ Failed
Reason for failure or partly satisfactory?	N/A			
Valve reset dry?	YES			
Condition: Interior of body	SAT			
Condition: Water from test pipe	SAT			
Condition: Moving parts	SAT			
Condition: Seats	SAT			
Condition: Rubber facing	SAT			
Main drain flow test: Static	85			
Residual	70			
Time for water to inspectors test	DT			
Alarm tested	YES			

QUICK OPENING DEVICES

	SYSTEM #1	SYSTEM #	SYSTEM #	SYSTEM #
Make, model & year	RELIABLE "B"			
Operation: Satisfactory, Shut Off or Failed?	☒ Satisfactory ☐ Shut Off ☐ Failed	☐ Satisfactory ☐ Shut Off ☐ Failed	☐ Satisfactory ☐ Shut Off ☐ Failed	☐ Satisfactory ☐ Shut Off ☐ Failed

Protection Survey

Fire Protection Solutions
668 N. Coast Highway, Suite 518
Laguna Beach, CA 92651
www.fpsolutions.org

Location Surveyed

WestRock Company
Portland East Recycle
Plant 4408
6328 S.E. 100th Ave.
Portland, OR 97266

Survey By: **Nathan Allen**
3165 Shadow Walk Lane
Tucker, GA 30084
678-923-9194
nathan.allen@fpsolutions.org

Conferred With

Wayne Jackson, General Manager
Danielle Hasley, Plant Supervisor

Survey: **March 27, 2018**

New Recommendations Resulting From This Survey

None.

Recommendations Observed Completed This Survey

17.01 - Yard storage
M16.01 - Heat detector for baler
M16.02 - Reconfigure air supply
M17.01 - FM Red Tag System

Risk Quality Score: **100**	Division Score: **89**

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FM Global Servicing Office

Your FM index number: 1433.09-01

Use the following FM Global office for plan review and impairment notification.

San Francisco Operations
100 Pringle Ave., Suite 400
Walnut Creek, CA 94596 USA
925-934-2200

To report an impairment: http:\\www.fmglobal.com/redetag Or, by phone: 888-247-9062

Recent Changes and Comments

Management has been very proactive with fire loss prevention as evidenced by the completion of several maintenance items and the recommendation involving excessive yard storage. (M17.01, M16.01, M16.02 and M17.01) The baled yard storage has been removed from around the plant and is no longer against the exterior walls. Management has also installed a heat detection unit that is interlocked to shut the baler down upon detection of a fire. Concerning fire protection, management has implemented the FM Global red tag permit system for handling impairments and the dry pipe sprinkler system has had some piping reconfigured so that the low pressure air alarm can be more readily tested without tripping the system.

Since management has changed, the emergency plans (fire and flood) were reviewed and found current. New management is familiar with these documents.

During the discussion of the human element loss prevention programs, the topic of the FM Global online training programs was mentioned and management showed interest. A link to the online training was emailed to management.

Since the previous audit, there have been a couple of fire events at this location. The fire involving the yard storage that is south of plant across the street is believed to have been an act of arson. The investigation did not lead to the discovery of any identifiable suspects. There was a man who entered the yard prior to the fire was confronted by plant personnel and told he was trespassing. He is believed to be the possible arsonist but cannot be found or identified at this time. One positive aspect of this incident is that it caused management to review their emergency response procedures. Damage was fortunately minimal.

The other fire occurred with the loader inside the plant and it affected the sort line. It still has not been determined how the fire was started. No sprinklers operated. As a result, a new 926 loader was acquired for the plant. It is equipped with a fire extinguisher and the operator(s) have been properly trained.

No other signifcant changes have occurred since the last audit.

Construction

Total Building Area: 38,259 ft²

This building has concrete tilt-up walls, a concrete floor and built-up steel deck roof held up with steel beams, a steel truss system, and steel columns. There is also a 2,014 ft² metal-on-wood-frame vehicle maintenance building on the south lot across Woodstock Blvd., and a 720 ft² "mobile home" type lunchroom and office structure nine ft. south of the main building. These buildings are not protected by automatic sprinklers. Recommendation for sprinklers for the maintenance shop building is being held in abeyance. No recommendation has been made to sprinkler the mobile home office/lunchroom building because it's leased, of low value, and < 1,000 ft². The percentages of construction types are 93.8% "Type II" (noncombustible) and 6.2% "Type V" (wood frame).

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Occupancy

This is a recycling facility that recycles paper, plastic, aluminum cans, glass, and tin. The material is single stream residential. Loose waste paper is received outside of the west wall of the main building and immediately moved into the building to the north end where it is fed into a hopper that feeds a conveyor moving it to a sort line that runs along the east side of the entire building. The material moves through automated sorting equipment (rotating machinery that separates materials by weight) and past manual sorting stations. The sort line has bins below it in areas. The bins receive the different materials as they are separated. Materials also continue down the line to a conveyor that feeds the single main baler. Once bales come off the baler, they are either shipped, or moved to the yard south of Woodstock Boulevard.

Production is approximately 6,500 tons per month shipped with 6% being plastic. Yard storage consists of baled plastics, aluminum, glass and tin piled to about 10 ft. high, and is mostly located south of Woodstock Blvd, which is over 100 ft. away from the main building. The maintenance garage is located in this south lot. When shipping is impaired, yard storage has occured against both the south wall and in the north-west truck dock well; none was present this visit [2018].

The plant operates two overlapping shifts from 0500 to 2100 five days/week, plus an average of two Saturdays each month (one 8-hour shift on Saturdays). One shift is sorting and two are baling.

Protection

Percentage Sprinklered: 92.9% Percent Needing Sprinklers: 7.1%

Private Protection

A single dry pipe sprinkler system protects the main building. Two small detached structures (a maintenance shop building and a mobile home that's being used as a lunch room and office) are not sprinklered. The water supply for this facility is provided by a six inch connection to a six inch public main in SE Woodstock Court. All hydrants in the area are city hydrants.

A line of exposure sprinklers runs along the top of the west wall to protect the building from a fire in the waste receiving pile which is adjacent to that wall. Exposure sprinklers along the full length of the wall, together with a written plan which calls for the outside doors to be closed in the event of a fire outside, are acceptable since there is no longer any exterior stock near the baler building. Calcs show the current 16 sprinklers can flow minimum 3 gpm per lineal foot of wall with the city water supply.

Water is supplied via a single 6" connection to a gridded 6" public main. The plant has no private fire hydrant.

Public Protection

There are gridded 6 and 8 inch public mains throughout this area. The area is mostly residential. There are ample public hydrants. Fire department is local and is full time, paid. The Portland Water Bureau will not permit or conduct hydrant flow tests on site; instead, they provide a model simulation of available flow and pressures. The model indicates the maximum static pressure for this site is 87 psi (2/21/13 report). The PWB stipulates that 80% of that maximum static pressure is all that can be used to design fire protection. In 2009 they did provide information on a test that was done at the site in February, 2007. The results of that test compare favorably to the only other flow test available, which was done by the city in 1991. However, the 2/21/13 simulation from the PWB indicates much less water is now allowed to be used for protection design. The 2007 data showed 87 psi static with 7,888 gpm available at 20 psi. The 2013 report shows 70 psi static with 3,282 gpm available at 20 psi. Static pressures noted at all FPS surveys have been between 75 and 85 psi.

Exposure

There are no significant exterior structural exposures within 100 ft. of the main building (see diagram). See "Protection" (above) re: outside exposure sprinklers along west wall of main building.

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Surveillance

Surveillance: Central Station

Surveillance Adequate? Yes

The plant operates two overlapping shifts from 0500 to 2100 five days/week, plus an average of two Saturdays each month (one 8-hour shift on Saturdays). There are no watchmen except that one is posted on site on the 4th of July every year. ADT provides intrusion surveillance both at the main building and at the detached maintenance shop building, plus they receive signals for manual pull stations, low air pressure, waterflow, and valve tamper. Both lots are fenced. A closed circuit television monitoring system with both tape storage and remote access monitors the yard areas and the inside of the main building. New cameras were installed during the sort line project. The camera surveillance system transmits to Norcross.

Testing

The PIV tamper device was tested, a main drain flow test was done on the sprinkler riser and the waterflow alarm was tested. The pit water supply control valves were visually checked and found to be open and locked. No private hydrants exist for flow testing.

Management Programs

All management programs comply with Corporate requirements, and good written records are maintained. There are regular designated inspections of the sprinkler systems. Programs include:

- Fire system water supply control valves, system air pressures, water pressure, and general plant housekeeping and maintenance are all inspected weekly in-house.
- Water flow and valve supervisory alarms and manual pull stations are all tested monthly by Tyco Integrated Security (ADT). Dry pipe low air pressure supervision is now being teste.
- Fire extinguishers are inspected monthly by an outside contractor.
- Main (2-inch) drain flow tests are done quarterly by plant personnel.
- Dry pipe valves are trip-tested and additional inspection, testing and maintenance as required by NFPA 25 is done annually by Viking Automatic Sprinkler. The last annual trip test and full inspection was done on 12/4/17. Full flow trip tests were done 07/15/08 (water-at-test in 31 sec), 2/9/12 (water-at-test in 40 sec), and 2/8/13 (water-at-test in 27 sec). The 2/24/15 test was a partial trip taking 16 seconds to trip. The 11/3/16 trip test was a partial trip as well. The system has an accelerator (Reliable B-1).
- An internal investigation of the sprinkler system piping was done in 2015 during the sprinkler modifications. This included flowing water to prove lines unobstructed.
- The last IR scan of the plant's electrical equipment was done 1/11/16 by GRC. The one electrical problem found was of intermediate rating and was corrected immediately. The next one is scheduled for this year.
- Employees are given fire extinguisher training annually. The last exercise was 6/6/17.
- A watchman is posted at the site on the 4th of July every year. Otherwise there is no watchman service during non-operating hours.

The written emergency response plan includes incipient fire fighting with annual training for all employees on extinguishers. The plan also includes evacuation, notification of the fire department, responsibilities of a valve attendant, and a requirement to close the exterior doors in the event of a fire in the yard. Exterior doors are in good repair and operate well.

There is no smoking in the facility. A smoking area is provided outside the plant, well away from any entrances. There is a hot work policy using written permits; hot work preparation program is good. There is an impairment notification policy which is taken directly from the Property Conservation Program. Notification is to FM Global.

Flood Exposure

Flood Zone: AE Flood Elevation: 211.9 Plant Elevation: 210.8

100 Yr.Flood PML: $2,280,000 500 Yr.Flood PML: $2,357,696

Current FIRM panel 4101830206E, dated 10/19/04 shows the current zone as non-shaded, i.e., an X zone, not subject to flooding. However, the 100-year floodplain boundaries have been revised. The entire WestRock site

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Flood Exposure

is in the floodplain in flood zone "AE". This new boundary is consistent with past flood activity on the site (see below). Aerial photography confirms that the site has flooded previously. The City of Portland advised all property owners of the Johnson Creek area in a 9/20/13 letter that stated the 100-year floodplain map will be updated. Technically the official FIRM map will not change. This is done infrequently. Instead, a Letter of Map Revision (LOMR) was issued. While the LOMR changes the 100-year floodplain boundaries, it does not change the printed FIRM maps. The FEMA website doesn't show the changes to the RockTenn property because technically the FIRM maps aren't changing. Notice of Letter of Map Revision was posted to "The Oregonian" on January 29th, 2014. That day started a 90-day public appeal period. The Letter of Map Revision was effective May 1, 2014.

Site civil engineer drawings show the yard around the building to have elevation from 208' (on the south along SE Woodstock Blvd) to 210.58' (on the north along SE Woodstock Court). The building's finish floor is 210.75'. 100-year flood level for the site, per City of Portland, will be 211.9' after the LOMR is adapted. This would produce 1.15' of water in the building. Current Flood Insurance Study (FIS) from 11/26/10 shows the 100-year flood level as 209' and the 500-year level as 211.5'. Hence, the new LOMR is increasing the 100-year level by almost two feet. Applying this estimate to the 500-year flood, it would reach 213.5', about 2.75' high inside the building.

In early January, 2009 the area of town in which this plant is located experienced some flooding as a result of overflow from Johnson Creek, which is located about 1/4 mile south of the plant. The surrounding streets (S.E. Woodstock Court, S.E. 100th Avenue, and S.E. 101st Avenue) were flooded, as was S.E. Foster road in the area east of the plant. Water got into the low (dock door) areas of the yard along the west side of the main building, but no water entered the building and no water entered the outside storage yard across the street to the south of the main building. Operations were not affected. Plant personnel say they've heard that a minimal amount of water did get into the building several years ago, but details are unknown.

Based upon the new flood levels and assuming no plant action is taken (worst case scenario), the following damages would occur:
100 year:

- Building is damaged by floating inventory (bales, rolls). About 15% of the building value could sustain damage: 0.15 x $4,085,843 = $612,876
- Stock will topple and float away. 30% of inventory lost = 0.30 x $51,223 = $15,367
- Machinery will be 20% damaged: 0.20 x $7,080,179 = $1,416,036

Total PD = $2,044,279

- Production will stop for 1 month to repair building and equipment: 1/12 x $3,761,000 = $313,417

Total loss = $2,357,696

500 year:

- Building is damaged by floating inventory (bales, rolls). About 30% of the building value could sustain damage: 0.30 x $3,891,279=$1,167,384
- Stock will topple and float away. 75% of inventory lost = 0.75 x $5,186,420=$3,889,815
- Machinery will be 50% damaged: 0.50 x $28,767=$14,384

Total PD = $5,071,582

- Production will stop for 2 months to repair building and equipment: 2/12 x $1,608,000=$268,000

Total loss = $5,339,582

The plant has a flood response plan. Note: river gage for this site is Sycamore gage on Johnson Creek. See: http://water.weather.gov/ahps2/hydrograph.php?wfo=pqr&gage=syco3&view=1,1,1,1,1,1,1,1

Earthquake Exposure

UBC Zone: 2B EQ PML: $50,000

No natural gas supply. Sprinkler system is fully braced. No hazards of note. Piles of bales could possibly topple but damage would be limited. The building is concrete tilt-up with a steel frame roof so there are good

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Earthquake Exposure UBC Zone: 2B EQ PML: $50,000

roof-to-wall ties. Stock is not subject to breakage or water damage (if not submerged). A Richter 7 (Modified Mercalli Intensity IX) event should not produce much damage.

Special Hazards

Baled Paper Storage

Location: North end, main building

Description: Shredded and small piece bales of paper, bound by wire, are stacked on the floor in the main building to an overall maximum height of 15 ft. There is a decent amount of the finished bale storage, but it is maintained at a tolerable level due to being shipped immediately or moved to the lot across the street.

Protection: The main building is protected by dry pipe Sprinkler System Number 1. Per NFPA 13 (2016 Ed.), Figs. 14.2.4.2 & 14.2.4.3, storage of baled paper up to a height of 20' can be adequately protected by 0.17 gpm/ft² over 3900 ft² (dry system, 286 °F sprinklers). For the most part, the available protection meets that requirement (see "Sprinkler System Design" table); protection is adequate.

- FM D.S. 8-22, Jan. 2002, required 0.25/3900 gpm/ft²/ft² for up to 20' high storage in up to a 30' high building with a dry system; 0.19/3000 gpm/ft²/ft² is available with the relocated riser. The Oct. 2013 revision now requires K-11 sprinklers with 30 heads operating at 7 psi, equal to 0.30/3000 gpm/ft²/ft².

Deficiencies: None

Hydraulic Fluid/Baler

Location: Baler, center of building.

Description: The baler is an ISP. It has one 1500 gallon tank (14' x 4' x 3'-8") of combustible hydraulic fluid, located near the baler. The pumps operate only when a bale is being pressed. The remainder of the time, there is no pressure on the system. However, the unit is not attended, though there are personnel in the building. The control panel is on the ground south of the hydraulic tank/pump skid.

Protection:

- Sprinkler protection is provided through System 1. Protection is adequate. See Sprinkler System Table. This occupancy is being treated as Ordinary Hazard Group II, with a density requirement of 0.17 gpm/ft² over 2000 ft² (2600 ft² for a dry pipe system). Existing protection exceeds 0.17 gpm/ft² over 3900 ft². Protection is adequate.
- The baler documentation indicates it has a low hydraulic fluid cut-out, but does not specify at what level it actuates. The tank has a wire coming from the device. However, the panel showed the tank oil level to be low and the unit was not shutting down. ISP provides no documentation specifying how and how often to test this interlock. The detection device is about 17 inches long and evidently is supposed to alarm at 14 inches below the tank top. If normal operating level is 6 inches below the top, about 8 inches of fluid would need to discharge before the detection device actuated. 14 inches = 240 gallons. The detection device is wired to alarm by closing contacts, so it is not fail safe; i.e., if a wire breaks or the device is not connected, nothing happens and the unit continues to run. Also, at the 3/16/16 survey, the panel was found indicating a low level, but there was no audible indication of this and the baler was running.
- Emergency stops are at the main panel near the hydraulic skid.
- An automatic heat sensor has been installed over the hydraulic tank that is interlocked to

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Special Hazards

Hydraulic Fluid/Baler

shut the baler down upon detection. It is rated for 225 °F.

Deficiencies: None

Paper Dust

Location: Directly over the Baler

Description: Up to ½ inch of paper dust on the overhead building structural members.

Protection:
- Sprinkler protection is provided through System 1. Protection is adequate. See Sprinkler System Table.
- The facility does vacuum cleaning every year.

Deficiencies: None.

Yard Storage

Location: Yard south of SE Woodstock Blvd.

Description: Loose combustible and non-combustible materials (metals, aluminum, plastic, paper) are kept in segregated (walled) spaces around the perimeter of the yard south of SE Woodstock Blvd. Height is not more than 15 feet.

Protection: The storage south of SE Woodstock is over 100 feet away from the Baler Building.

Deficiencies: None.

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Sprinkler System Design

SysNo	Building	Calculated Density: Density/Area (gpm/sq.ft.)	Calculated Density: Density/Area (sq.ft.)	Calculated Density: BOR Demand (gpm)	Calculated Density: BOR Demand (psi)	Available Density: EndHd - Avg	Available Density: BOR Demand
1	Baler	0.17	3900	878.3	82.5	0.15 0.20	765 67

Type: Dry | BOR elevation: 0 | Line Slope: 0.00 | Flow Date: 2/21/13
Pipe Design: Tree-hydraulic | Head Height: 28.0 | Head-to-head: 10.0 ft. | Static PSI: 70
SprinklerType: Standard Spray | Sprinkler K: 5.6 | Line-to-Line: 11.8 ft. | Flow GPM: 1300
Head Orientation: Upright | Temperature: 286 | Projected Spacing: 118.3 sq.ft. | Resid PSI: 61

Column Region: A-C/1-5.5

Building Region: Entire except for south 90' of building.
- Demand is at city main. BOR demand is 76.9 per FPS calc.

1	Baler	0.19	3077	744.2	82.2	0.17 0.21	655 67

Type: Dry | BOR elevation: 0 | Line Slope: 0.00 | Flow Date: 2/21/13
Pipe Design: Tree-hydraulic | Head Height: 28.0 | Head-to-head: 10.0 ft. | Static PSI: 70
SprinklerType: Standard Spray | Sprinkler K: 5.6 | Line-to-Line: 11.8 ft. | Flow GPM: 1300
Head Orientation: Upright | Temperature: 286 | Projected Spacing: 118.3 sq.ft. | Resid PSI: 61

Column Region: A-C/1-5.5

Building Region: Entire except for south 90' of building.
- This is based upon riser relocation with feed main changes per Viking 3/30/15 sheet FP2.1

1	Baler	0.17	3904	758.0	69.8	0.17 0.19	737 67

Type: Dry | BOR elevation: 0 | Line Slope: 0.00 | Flow Date: 2/21/13
Pipe Design: Tree-hydraulic | Head Height: 28.0 | Head-to-head: 10.0 ft. | Static PSI: 70
SprinklerType: Standard Spray | Sprinkler K: 5.6 | Line-to-Line: 11.8 ft. | Flow GPM: 1300
Head Orientation: Upright | Temperature: 286 | Projected Spacing: 118.3 sq.ft. | Resid PSI: 61

Column Region: A-C/5.6-8

Building Region: South 90' of building

1	Baler	0.30	1600	519.0	77.4	0.28 0.30	480 69

Type: Dry | BOR elevation: -4 | Line Slope: 0.00 | Flow Date: 2/21/13
Pipe Design: Loop-hydraulic | Head Height: 27.0 | Head-to-head: 10.0 ft. | Static PSI: 70
SprinklerType: Standard Spray | Sprinkler K: 5.6 | Line-to-Line: 10.0 ft. | Flow GPM: 1300
Head Orientation: Upright | Temperature: 165 | Projected Spacing: 100.0 sq.ft. | Resid PSI: 61

Column Region: A/4-8

Building Region: West wall exposure sprinklers
- Design is 16 heads @ 30 gpm/hd
- Demand is at city; BOR is 75.3 psi

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Water Supply Description

Supply has backflow preventer? Yes

One six-inch connection to a six-inch public water main in S. E. Woodstock Ct. feeding sprinklers and inside hoses only. Connection is equipped with a six inch Ames Mod. 3000SS double detector check backflow preventer.

Description of flow	Gage Location	Static/Res PSI		GPM	Flow Location	Date/Observer	
Public hydrant flow	Hydt. @ Duke and 100th St. (½ block from plant)	93	90	1,400	Adj hydrant	2/1/91	Portland Water Bureau
Public hydrant flow	SE Woodstock @ 101st Ave.	87	77	2,824	SE Woodstock @ 101st Ave.	2/21/07	Portland Water Bureau
No flow. This is model data from PWB	Plant	70	61	1,300	N/A	2/21/13	PWB

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Recommendation History

List of all recommendations that have been submitted since 1995 and removed either due to the recommendation having been completed, or made non-applicable due to changed conditions, or removed at direction of corporate Risk Management ("abeyance"). Date indicates survey at which the item was removed.

	Category	and summary	Date done	Status
98.01a	HE	Weekly visual valve and dry system air pressure checks. Presently not done.	1/18/01	D
98.01b	HE	Monthly water flow alarm test with verification of central station receipt. Presently quarterly.	1/18/01	D
98.01c	HE	Quarterly valve exercise/lubrication. Presently no program.	1/18/01	D
98.02	HE	Control smoking. There were numerous cigarette butts noted outside the open door area near the office.	1/18/01	D
98.03	HE	Vacuum paper dust from building structure; 1" build-up noted.	1/18/01	D
01.01	AS	Provide an automatic sprinkler inside and below the elevated combustible control booth located on the baler.	1/8/07	D
01.02	AS	Provide automatic sprinklers within the garage structure in the product yard across from the main building. Install as a dry pipe system, designed for 0.19 gpm/ft² over 2600 ft². OR, provide fire detection to central station. [Abeyance: detached low value]	2/28/03	A
07.01a	HP	Extend exposure sprinklers above the outside waste paper receiving area to protect entire wall + door & window openings (requires six additional sprinklers). Have 12' - 15' high waste paper against the west wall. [5 heads added at south end resulting in total 16 heads.]	2/2/11	D
07.01b	HP	Maintain clear spacing from yard storage to doorway openings, or install fire doors. [Re-evaluated & removed; extending exposure AS full length of wall + written emergency plan to shut exterior doors if fire outside considered acceptable. See "001-0061-09B05.mem.pdf" in file.]	1/28/09	R
07.02	HP	Replace or enclose metal halide lights. [Eliminated metal halides & installed fluorescent lighting.]	1/28/09	D
14.01	HP	Either remove the bale storage in the east yard, or provide exposure sprinklers. Have 15' high (3 bales) paper bales for almost the length of the concrete wall; the wall has a large roll-up door opening. [M13.01] [Removed the bales to the south yard.]	3/19/15	D
17.01	HP	There was an excessive amount of storage at the time of the previous audit and the overwhelming majority of the yard storage around the plant has been removed. There is no storage against the exterior walls and only small amounts of storage present around the plant. Most storage is in the yard across the street. [Moved storage across the street.]	3/27/18	D

Recommendation Category Codes

AS	Automatic Sprinklers	HE	Human Element	ML	Maintenance List
CC	Combustion Controls	HP	Hazard Protection	MS	Miscellaneous
CT	Construction	IM	Impairment	SU	Supervision
FP	Fire Pump	MF	Manual Firefighting	WS	Water Supply

Status Abbreviations

D	Done
R	Removed
A	Abeyance

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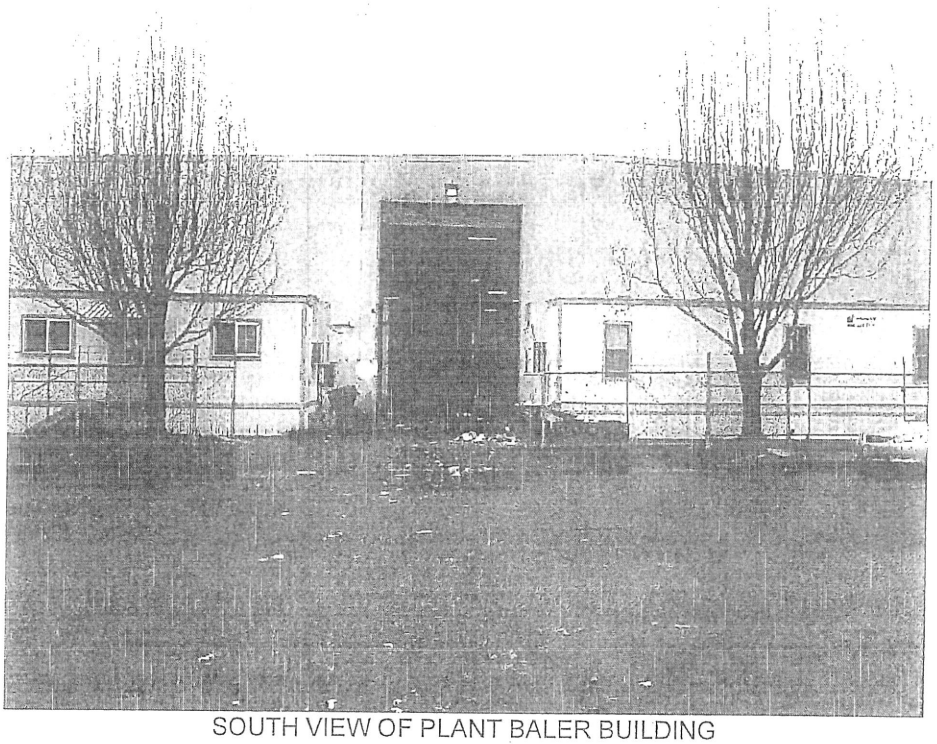
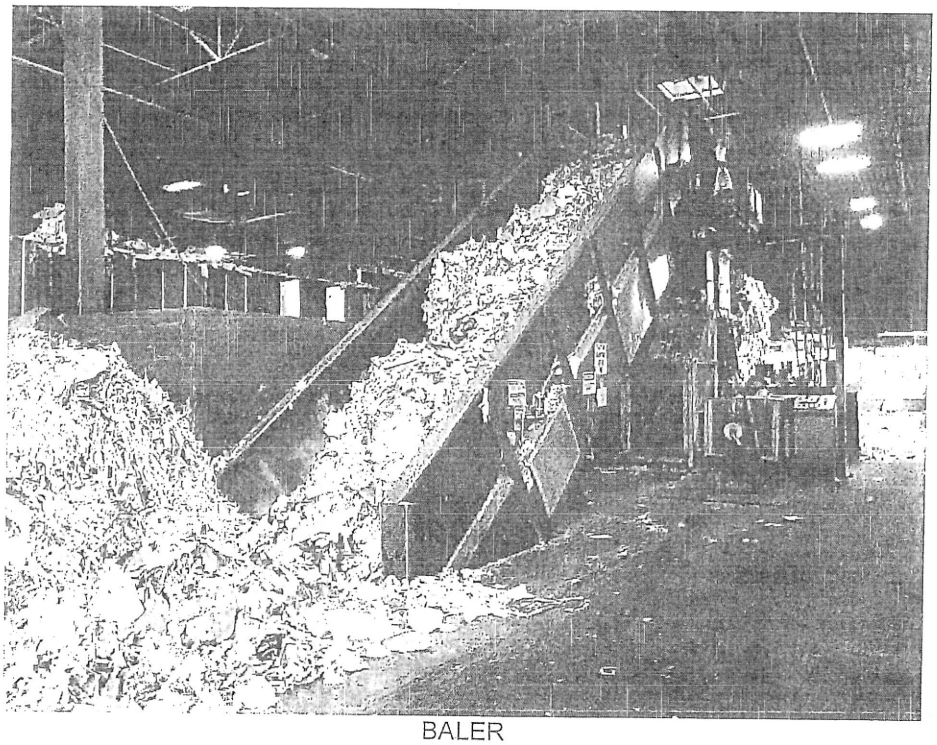


SOUTH VIEW OF PLANT BALER BUILDING



BALER

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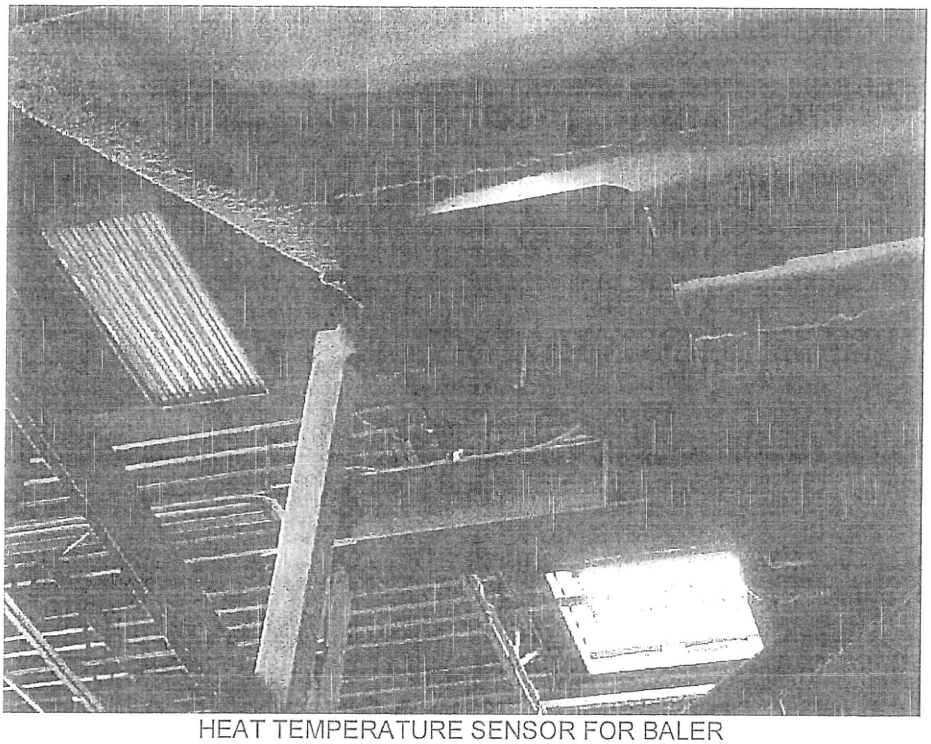
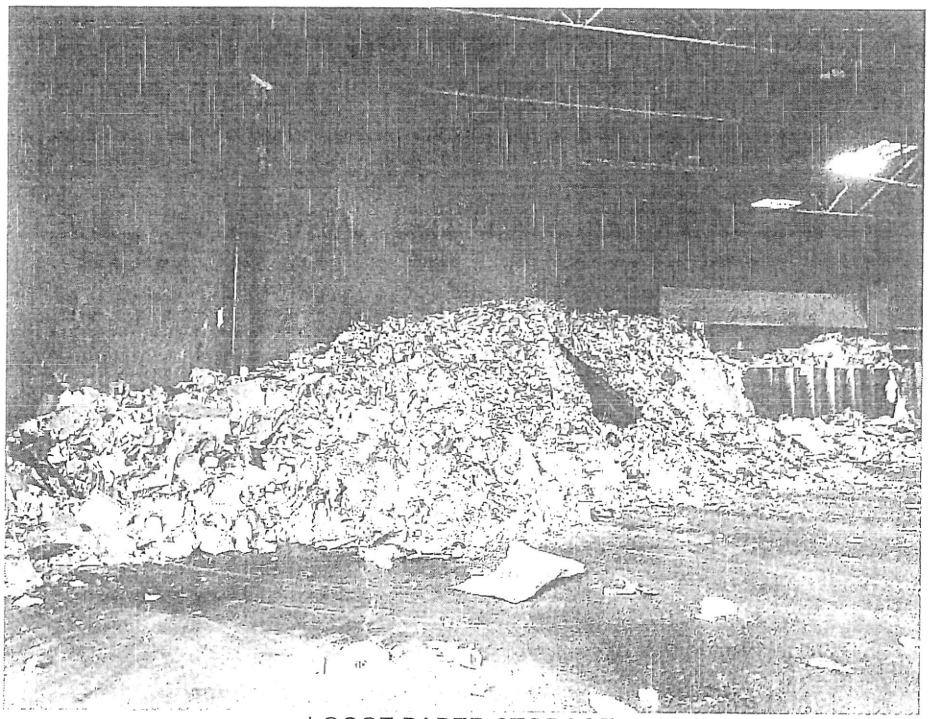


HEAT TEMPERATURE SENSOR FOR BALER



LOOSE PAPER STORAGE

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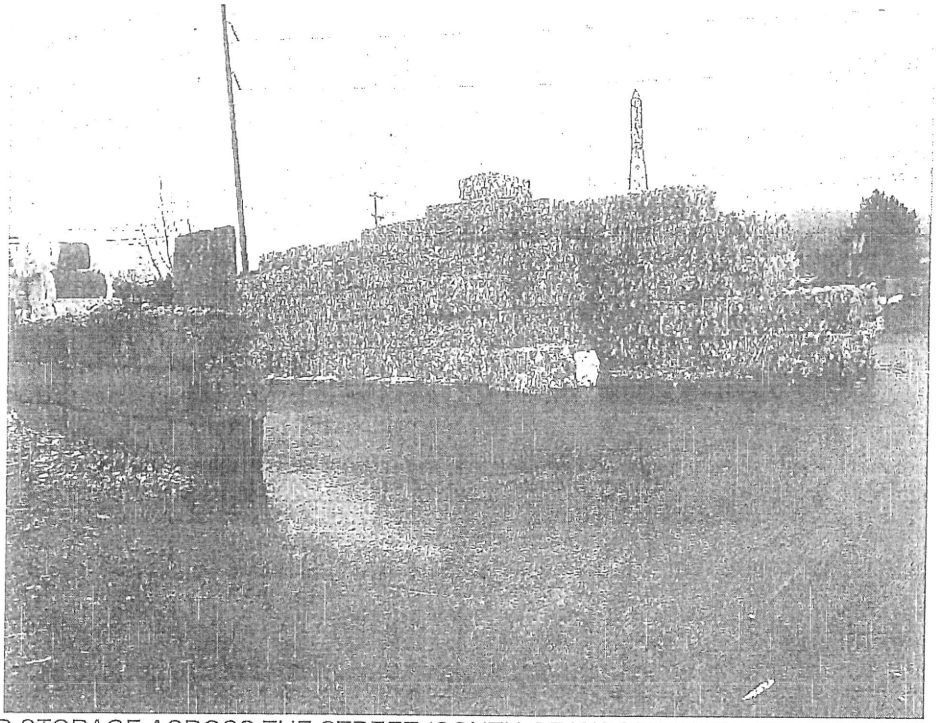

YARD STORAGE ACROSS THE STREET (SOUTH OF WOODSTOCK) FROM MAIN PLANT

YARD STORAGE SOUTH OF WOODSTOCK UNDER CONTROL

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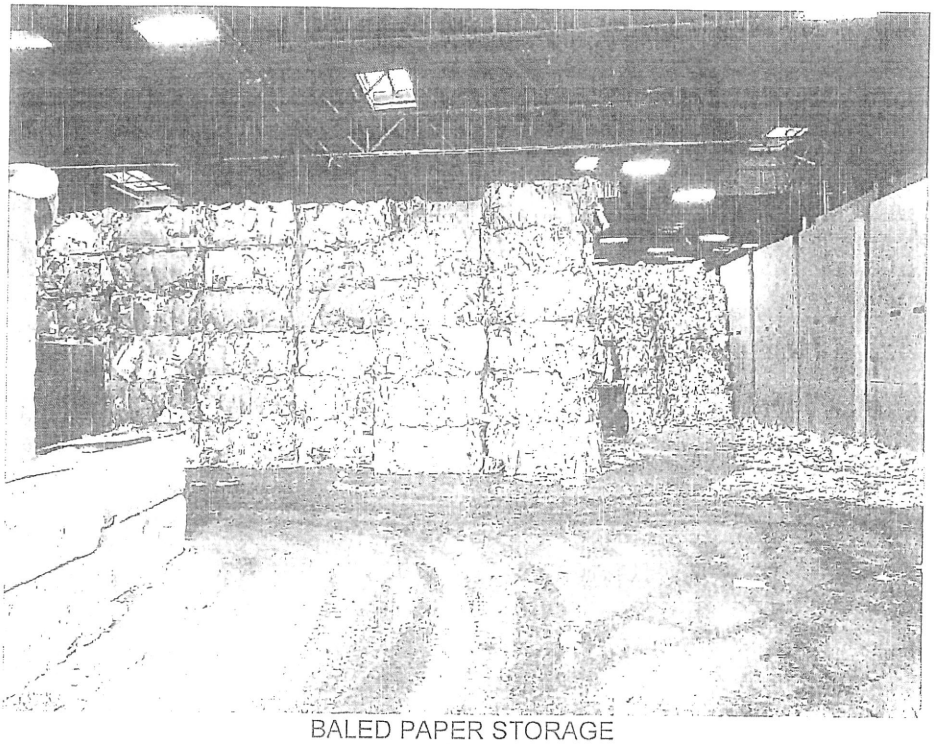

BALED PAPER STORAGE

VIEW OF SORT LINE AND LOOSE PAPER STORAGE

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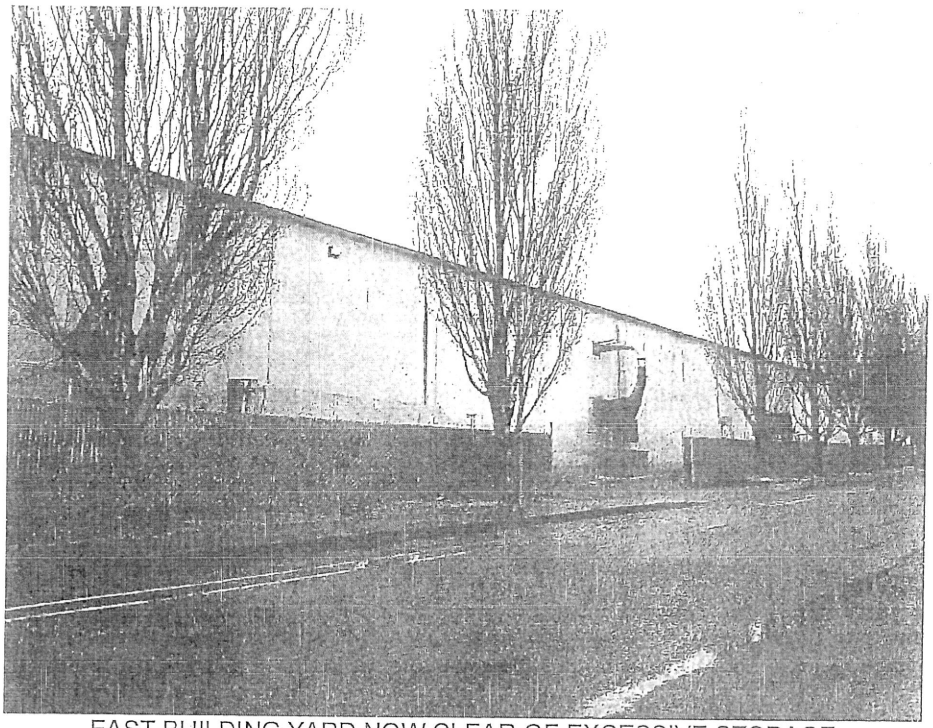
NEW LOADER



EAST BUILDING YARD NOW CLEAR OF EXCESSIVE STORAGE

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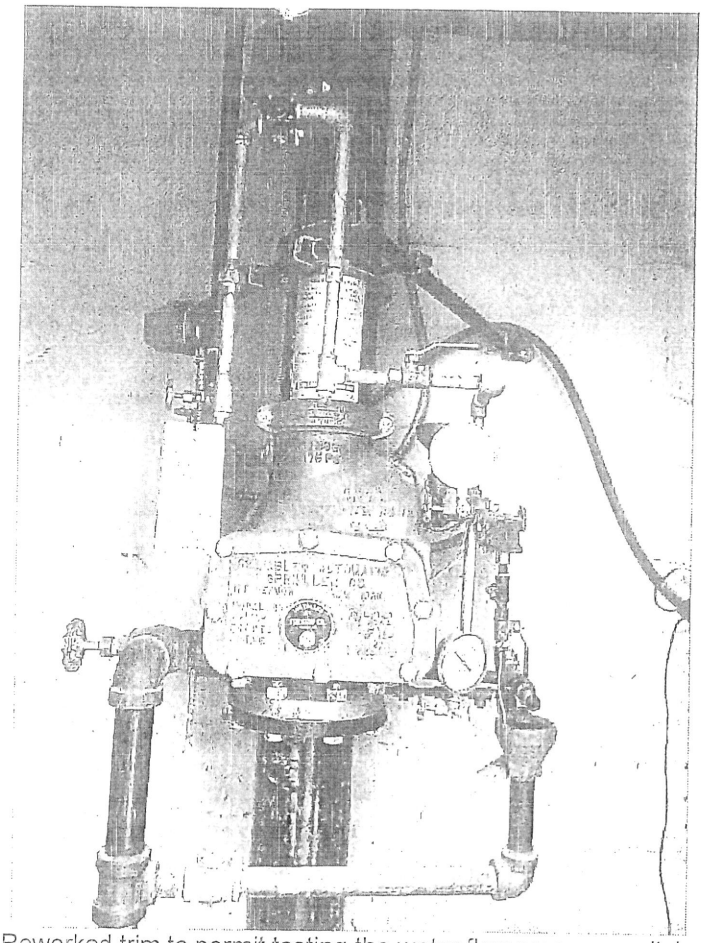

Reworked trim to permit testing the water flow pressure switch.

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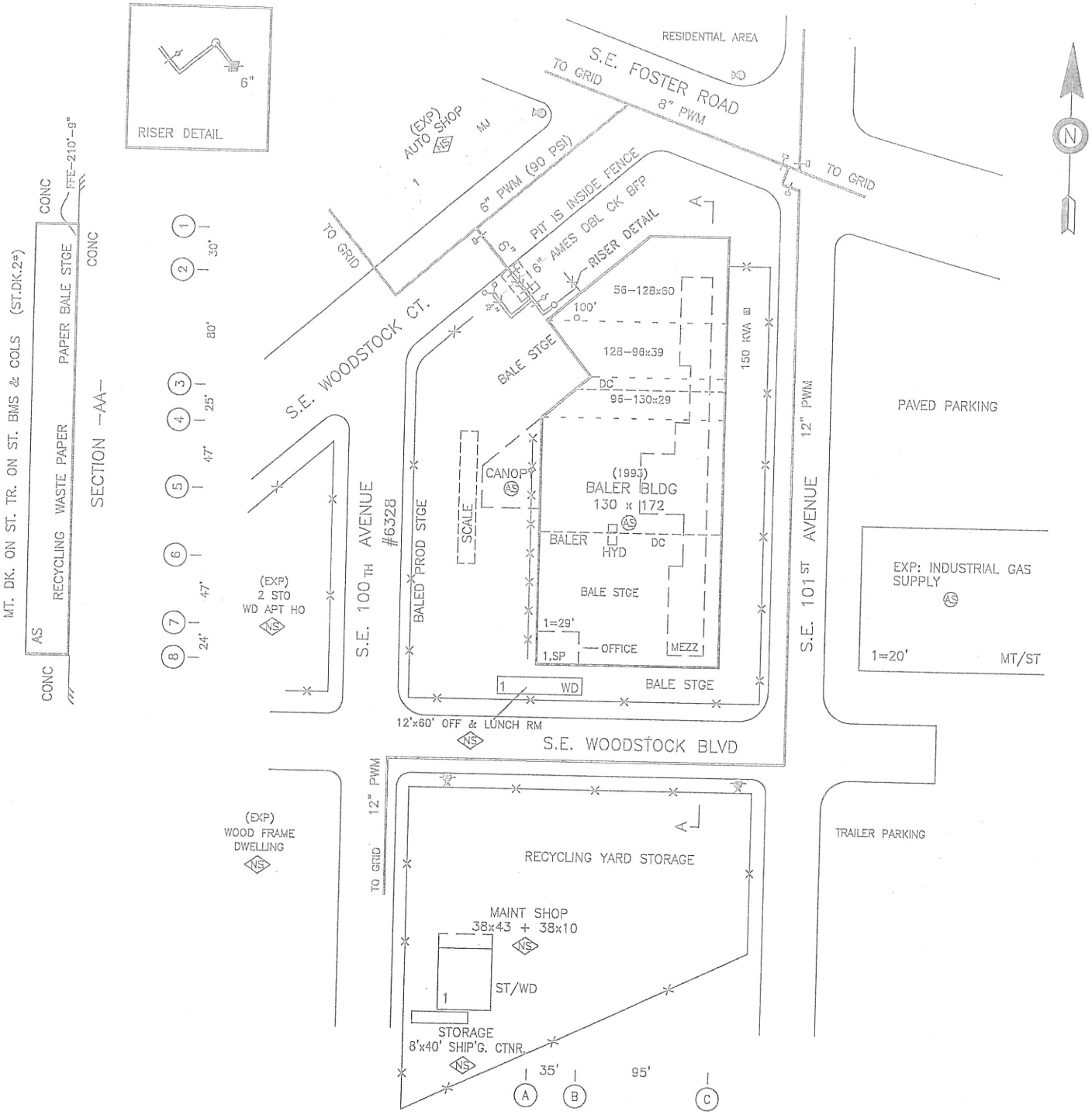

HYDRAULIC DESIGN DATA

AREA PROTECTED	DENSITY GPM/FT²	AREA SQ. FT.	BOR DEMANDS GPM	PSI
ENTIRE BALER BUILDING	0.17	3900	878	76.9

FIRE RATING LEGEND

- FIRE RESISTIVE
- COMBUSTIBLE
- NONCOMBUSTIBLE
- MASONRY/WOOD JOIST

FPS Fire Protection Solutions

0 50 100

Scale: 1" = 100'
CADD File Name: 022-0061
Drawn by: NATHAN ALLEN
Survey Date: MARCH 27, 2018

WESTROCK COMPANY
PLANT 4408
PORTLAND, OR

THIS PLAN SHOULD BE MADE AVAILABLE ONLY TO AUTHORIZED PERSONS. IT WAS PREPARED FOR USE BY FPS PERSONNEL FOR FIRE PROTECTION ANALYSIS ONLY AND IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF THE FACILITY.