Company Name:	International Paper - Georgetown Container	**Permit Writer:**	Katharine K Buckner
Agency Air Number:	1140-0044	**Date:**	DRAFT
Permit Number:	TV-1140-0044 v2.0		

DATE APPLICATION RECEIVED: August 01, 2024
DATE OF LAST INSPECTION: June 22, 2023 – no violations or issues were noted in the inspection report.

PROJECT DESCRIPTION

International Paper – Georgetown Container (IP-Georgetown Container) has requested to renew their TV Operating Permit.

FACILITY DESCRIPTION

SIC CODE: 2653 – Corrugated and Solid Fiber Boxes
NAICS CODE: 322211 – Corrugated and Solid Fiber Box Manufacturing

International Paper operates a corrugated container manufacturing facility in Georgetown, SC. This facility is considered a single source with the kraft pulp and paper mill, International Paper Georgetown Mill (1140-0002) located next door.

IP-Georgetown Container manufactures corrugated and fiberboard containers. Primary operations include corrugating, printing, and coating paper products; additional operations and equipment to support these operations.

PROCESS DESCRIPTION

Container Production

The first step in the production of containers at IP-Georgetown Container is the corrugator. Linerboard stock is received on large rolls. Three sheets of linerboard (thin cardboard) are formed into corrugated board. Impregnating wax (beef tallow) is applied to the top layer, the medium goes through the corrugator roll, and the single facer glues the medium to the top liner to form a web. The double facer then glues the bottom layer to the web, and hot plates set the adhesive. The corrugated sheet then goes through the slitter to trim the edges and is cut to length and stacked at the end of the corrugator. The trim is pneumatically conveyed to one of the two wastepaper handling cyclones (CYC-1 and CYC-2).

The corrugator adhesive mix process consists of one 450-gallon adhesive mix process vessel, two 2,000 gallon adhesive storage tanks, and two 95 gallon adhesive process doser tanks. In the adhesive mix process vessel, starch is mixed with caustic, water, and borax and heated to make adhesive. The adhesive is stored in the storage tanks and then pumped to the doser tanks or delivered directly to the corrugator. The Corrugator and the Adhesive Mix Process vent through the building vents, emission point IDs S-01.

Corrugated board may be sent to the united line die cutter (2404) or to the Nos. 1-4 poultry lines (2614, 2624, 2634, and 2644). The board sent to the united line die cutter is printed in two print stations, cut to size, and then stacked. Poultry line Nos. 1, 2, 3, and 4 each have two flexographic print stations that apply two colors of ink and die cutters to cut the corrugated board to size. These four lines can coat corrugated board with wax on both sides using curtain coaters. Scrap from the die cutters on all lines is pneumatically conveyed to the wastepaper handling cyclones. The product is then stacked on pallets using the palletizer and packaged for shipment.

Supporting Operations

Supporting operations include process steam generation, raw materials handling, wastepaper handling and consolidation for disposal, and parts and die preparation and cleaning.

- EU 04, Boiler, equipment ID B-1: A 25.1 million Btu/hr natural gas/No. 2 fuel oil fired boiler is used for steam generation. Steam is supplied to the corrugator for the hot plates and corrugating roll.
- Starch Silo, equipment ID SIL-1: A silo is used to store starch for use in the adhesive mix operations. Emissions from the silo loading are controlled by a baghouse.
- EU 05, Wastepaper Handling: Scrap material from the corrugator and converting area (EU 01 and 02) is pneumatically conveyed to the wastepaper handling cyclones. The waste is first routed to the hogger (HOG-1), which shreds the wastepaper. The hogger exhausts back into either of the wastepaper handling cyclones (CYC-1 or CYC-2) and can be used to shred off-specification products. Scrap from the corrugator, which is coated with beef tallow, can be recycled along with any converting scrap not coated with the curtain coating wax. Scrap materials coated with the curtain coating wax that comes from the Nos. 1-4 Poultry lines (EU 01), cannot be recycled. The hogger has a diverter valve that routes the scrap for recycling to the baler (BAL-1), and that which cannot be recycled (coated with curtain coating wax) to the cuber (CUB-1). Other scrap is manually separated. The baler and cuber are located indoors under each cyclone (the baler for the non-wax cyclone and the cuber for the wax cyclone). The cuber and baler are gravity fed the trim collected by the cyclones up on the roof. In the cuber, hot water is sprayed on the scrap paper, which then passes through a machine that compresses and extrudes it into cubes. These cubes are loaded into a bin and sent to the IP-Georgetown Mill for combustion in their power boilers. Clean material without wax that comes from the corrugator, or converting that is unwaxed, is baled in the baler and sold as recycled material. Emission points from the cuber and baler exhaust back into the cyclones.
- Wastewater – wastewater from the Container facility is handled by the Georgetown Mill wastewater treatment system.

Insignificant Activities

IP-Georgetown Container submitted the following equipment in the TV OP renewal application as Insignificant Activities.

Equipment ID	Equipment Description	Installation Date	SC IA List
FTK-1	No. 2 Fuel Oil Tank, 6,000 gallons - The boiler does not currently use fuel oil, but the tank is not empty.	1981	Section B.7
BMH-1	Bagged Material Handling - This source is operated by adding 50-lb bags of borax to glue mixing. 43,858 lbs used in 2011.	1981	Less than 5 tpy year of any criteria pollutant
T-CCW	Curtain Coating Wax Heated Storage Tank, 26,750 gallons	1981	Less than 5 tpy year of any criteria pollutant
T-IW	Impregnating Wax Heated Storage Tank, 26,750 gallons	1981	Less than 5 tpy year of any criteria pollutant

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EQUIPMENT MODIFICATIONS			
EU ID, Equipment ID	**Equipment Description**	**Date Modified**	**Modification Description**
01, 2614	Rotary Die Cutter Poultry Line No. 1	1999	Replaced two print stations and one die cutter section. (c/p-CG)
01, 2634	Rotary Die Cutter Poultry Line No. 3	2000	Roll coater replaced with a curtain coater.
		2007	Replaced the existing wax head with two wax heads and a twist belt. This allowed both sides of the fiberboard to be coated. (03x)
03, 1021	Corrugator	2000	Replaced existing single facer with two adhesive applicators with a new single facer with three adhesive applicators. Replaced two splicers with three. Replaced two wax applicators with two new ones. Replaced two roll stands with three roll stands. (c/p-CI)
		2001	Replaced the old impregnating wax applicator with a new one (c/p-CJ)
		2009	The direct drive cut-off knife was replaced. (05x) Allowed replacement of spare preheater rolls. (06x)
06, SIL-1	Starch Silo and Handling System	1988	No details available, but modification confirmed by facility.

SINGLE SOURCE DETERMINATION

IP-Container is a single source with the International Paper – Georgetown Mill (1140-0002), which is a pulp and paper facility. These facilities have previously been determined to be a single source for Title III, Title V, and PSD/NSR. The details of the single source determination for IP-Georgetown Container (1140-0044) and IP-Georgetown Mill (1140-0002) can be found in the statement of basis dated 2/25/20 and Program Components tab in ePermitting.

CHANGES SINCE LAST OP ISSUANCE

- Waste Paper Handling (EU 05) – Previous process weight rate (PWR) was based on the maximum process weight of 5.6 ton/hr. However, the PWR for this renewal uses the maximum throughput of the corrugator, in MSF/yr, which is the limiting factor in production. (See Std No. 4)
- Rotary Die Cutter Poultry Line No. 3 (EU 01, equipment ID 2634) – previously a modification date of 2009 was listed for this equipment. However, no permit or exemption letter for any type of modification to this equipment can be found. Neither could the facility find information on a modification for this date. Therefore, it will be removed from the list of modifications for this source.
- Starch Silo Baghouse (EU 06, control device ID: CE-01) Monitoring – pressure drop monitoring of the baghouse is being removed with this renewal. Uncontrolled emission estimates for PM are much lower than the allowable emission limit set by Std No. 4. This was the case during the last renewal too. The facility has also requested to remove the pressure drop monitoring.

- Baler (EU 05, equipment ID BAL-1) – updated the stack ID from S-01 (building vents) to S-03, the same as the No. 1 Wastepaper Handling Cyclone. The No. 1 Cyclone collects the unwaxed wastepaper for baling. The baler vents back into the cyclone.
- Rotary Die Cutter Poultry Line No. 2 (EU 01, equipment ID 2624) was replaced in 2023 under Exemption letter EX-50000064, issued September 13, 2023.
- *Note about the application*: In the ePermitting TV renewal application, a particulate matter (PM) allowable emission rate was calculated for the four poultry lines (EU ID 01), the rotary die cutter United line (EU ID 02) and the corrugator (EU ID 03). Based on visual observations, there is no dust emitted from these sources. Therefore, these sources do not generate airborne particulate matter.

  - The corrugator is equipped with slitters that cut or trim the sides of the fabricated corrugate to even up the sides or cut the corrugate to the desired width. This trim is pulled by vacuum into the wastepaper handling system almost at the point of where it is cut from the main piece of corrugate. A "knife" is used to cut the corrugate to size for use in the converting machines (aka rotary die cutters).
  - On the poultry lines, cut to size sheets are sent into the flexographic printing machines where the flat sheet is printed. Small bits of the edges are trimmed off by a "knife" at the outlet of the flexographic printing operation. These small bits fall to a conveyor which carries these small bits to the opening where a vacuum pulls the bits into the wastepaper handling system.
  - The rotary die cutter cuts and creases the board and prints on it. Same as the flexographic printers, the parts cut away from the flat box drop to a conveyor underneath the cutting operation and are vacuumed to the opening for the wastepaper handling system.

  So, no particulate gets airborne. A particulate matter allowable emission limit does not need to be assigned to these sources. No particulate emissions have been calculated from these sources either. The wastepaper from these operations is collected by the cyclones. The cyclones are the emission point for the wastepaper handling system. Therefore, although the facility estimated a PM allowable emission rate for the corrugator, poultry lines, and rotary die cutter, there will be no PM limits for these included in the operating permit.

VOID EQUIPMENT

The following emission units/equipment have been deemed VOID and will be removed from the current operating permit. A comprehensive record of voided equipment for the site can be found in ePermitting under Program Components.

The following tanks were added to the TV based on c/p-CK (issued July 20, 2001), then were removed/voided from the TV in the 2010 TV OP renewal.

Emission Unit ID	EU Description	Equipment ID	Equipment Description	Reason for VOID Status	Date Removed
07	Storage Tanks	T-CCW	Curtain Coating Wax Heated Storage Tank, 26,750 gallons	Moved to IA list	April 5, 2010

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Emission Unit ID	EU Description	Equipment ID	Equipment Description	Reason for VOID Status	Date Removed
07	Storage Tanks	T-IW	Impregnating Wax Heated Storage Tank, 26,750 gallons	Moved to IA list	April 5, 2010

EMISSIONS

- Emission calculations for EUs 01, 02, 03, 05, and 06 are based on the corrugator throughput of 3,048,480 thousand square feet (Msf)/yr as the limiting factor for these production operations. Corrugator throughput is calculated from the run speed (ft/min) x width (ft) for sq ft/min over 8,760 hours per year operation.

EU IDs 01 and 02 - Containerboard Cutting, Printing, and Curtain Coating Wax Lines and Containerboard Cutting and Printing Line

The various materials (inks, glues, etc.) are applied to the corrugator sheets at each of the 4 poultry lines and united line die cutter. The application rates of each material and the maximum VOC/HAP/TAP weight % are used along with the corrugator throughput to estimate emissions. The SDS and ink vendor provided the VOC, HAP, and TAP contents. Only the inks contain HAPs and TAPs.

VOCs, HAPs, and TAPs emissions are calculated by:

= Application rate (lb/million sq in) x corrugator throughput (Msf/yr) x max VOC [or HAP or TAP] wt% x conversion factor (million sq in/thousand sq ft) x 1yr/8,760 hr

Example calculation:

- Ink application rate: 2.5 lb/million sq inch
- Maximum weight % Styrene: 0.0163
- Conversion factor from million sq inch to thousand sq ft = 0.144

Styrene emissions = 2.5 lb/million sq in x 0.0163% x 3,048,480 Msf/yr x 0.144 million sq inch/thousand sq ft x 1 yr/8,760 hr
= 0.02 lb/hr; 0.089 tpy

The VOC from the wax application for the 4 poultry lines is calculated similarly using the wax usage rate in lb/Msf. The historical wax usage rate has been scaled up by a 25% safety factor.

VOC emissions from wax = Wax usage rate (lb/Msf) x max VOC weight % x corrugator throughput (Msf/yr) x 1yr/8,760 hr
= 10.56 lb/Msf x 0.0014% x 3,048,480 Msf/yr x 1yr/8,760 hr
= 0.05 lb/hr; 0.23 tpy

EU 03 - Corrugating, Adhesive, and Impregnating Wax Application

VOC, HAP, and TAP emissions, based on the throughput of the corrugator, are residuals from the papermaking process, and are emitted due to the heating of the paper. The impregnating wax used at the corrugator, beef tallow,

does not contain any VOCs, HAPs, or TAPs. Corrugator emissions factors are derived from 2018 International Paper Study and NCASI Corrugator Sheet Plant Testing for VOC and Selected HAP, May 2018.

VOC, HAP, and TAP emissions are calculated similarly. Example calculation:
- VOC Emission Factor: 3.89E-03 lb/Msf
- Throughput of double-walled (Msf/yr): 3,048,480 Msf/yr

VOC emissions = VOC [or HAP or TAP] emission factor (lb/Msf) x corrugator throughput (Msf/yr) x 1yr/8,760 hr
= 3.89E-03 lb/Msf x 3,048,480 Msf/yr x 1 yr/8,760 hr
= 1.35 lb/hr; 5.93 tpy

EU ID 04 –Boiler, B-1

The boiler is rated at 25.1 million Btu/hr and combusts natural gas or No. 2 fuel oil. Emission factors from AP-42 Fifth Edition, Tables 1.4-1,-2, 7/98 Update for natural gas and AP-42 5th Ed, Tables 1.3-1,-2,-3,-6 5/2010 Update for No. 2 fuel oil were used to calculate the maximum uncontrolled emissions. Heating values of the fuel used are: 1,066 Btu/scf and 140,000 Btu/gal, natural gas and No. 2 fuel oil, respectively. The No. 2 fuel oil sulfur content used in the calculations is 0.05%. Emissions presented are the worst case between the two fuels. Greenhouse gases are calculated using emission factors from 40 CFR 98, Subpart C, Table A-1, Table C-1 and Table C-2.

EU ID 05 – Wastepaper Handling

The cyclones are the emission points for the Wastepaper Handling. Emissions are based on the throughput to the corrugator and the weight of baled material. Emissions factors are from the NCASI Interim Report on Size-Characterized Particulate Testing for Trim and Waste Handling Cyclones at Corrugating/Converting Plant E, April 2, 2021. The NCASI cyclone emission factors include those from the hogger since it exhausts into either of the cyclones. The baler and cuber are located indoors, one under each cyclone. The baler exhausts back into the No. 1 Wastepaper Handling Cyclone. The emission point from the cuber is through the No. 2 Wastepaper Handling Cyclone. A water spray is used on the cuber to aid the compaction of the waxed scraps. The cuber emissions factors are assumed to be 0.002% PM and 10.00% PM_{10}. $PM_{2.5}$ emissions are not expected from the cuber.

Example calculation, PM emissions from cyclones:
- Scrap baled: 67,066,560 lb/yr = 33,533.28 ton/year
- PM emission factor: 2.10 lb/ton baled

PM emissions = scrap baled (ton/yr) x PM emission factor (lb/ton baled) x 1 yr/8,760 hr
= 33,533.28 ton/year x 2.10 lb/ton baled x 1 yr/8,760hr = 8.04 lb/hr; 35.21 tpy

EU ID 06 – Starch Storage and Handling

Emission factors for the starch storage and handling are based on U.S. EPA AP-42 Table 9.9.1-1 and are adjusted to account for baghouse collection efficiency per U.S. EPA Table B.2-3. The starch transfer from the truck to the silo takes one hour. The facility receives up to 213 loads of starch per year.

Example calculation, PM_{10} emissions from starch handling:
- Starch application rate is the application rate x corrugator throughput
  = 3.5 lb starch/Msf x 3,048,480 Msf/yr
  = Starch throughput: 5,335 ton/yr

- Loads per year at one hour per load: 213 hr loading/yr
- Uncontrolled PM_{10} emission factor: 5.90E-02 lb/ton starch
- Baghouse collection efficiency was determined from AP-42, Table B.2-3: PM total – 99.00%, PM_{10} – 99.5% and $PM_{2.5}$ – 99.0%
- Controlled PM_{10} emission factor: 3.45E-04 lb/ton starch

Uncontrolled PM_{10} emissions = starch throughput (ton/yr) x emission factor (lb/ton starch) x 1 yr/loading hrs
= 5,335 ton/year x 5.90E-02 lb/ton starch x 1 yr/213 hr
= 1.475 lb/hr; 0.157 tpy

Controlled PM_{10} emissions = starch throughput (ton/yr) x emission factor (lb/ton starch) x 1 yr/loading hrs
= 5,335 ton/year x 3.45E-04 lb/ton starch x 1 yr/213 hr
= 8.625E-03 lb/hr; 9.203E-04 tpy

Insignificant Activities

- No. 2 fuel oil tank – the boiler does not currently use fuel oil but the tank is not empty. Therefore, only breathing losses were calculated using the TANKS calculations by EPA.
- Bagged Material Handling – 50 lb bags of borax are added to the glue (starch slurry) mixing. Throughput is based on historical usage. It is assumed 1% of material escapes while being added and then 1% actually makes it to the atmosphere.
- The Curtain Coating Wax Storage Tank – based on EPA TANKS calculations.
- There are no emissions from the Impregnating Wax Storage tank.

FACILITY WIDE EMISSIONS			
Pollutant	**Uncontrolled**	**Controlled**	**PTE**
	TPY	**TPY**	**TPY**
PM	38.95	38.48	38.48
PM_{10}	8.07	7.91	7.91
$PM_{2.5}$	2.25	2.22	2.22
SO_2	5.58	N/A	5.58
NO_X	15.72	N/A	15.72
CO	8.66	N/A	8.66
Total VOC (combustion + paper + process)	19.89	N/A	19.89
Lead, Pb	9.89E-04	N/A	9.89E-04
Total HAPs (combustion + paper + process)	8.76	N/A	8.76
Greatest HAP – Methanol (paper)	5.03	N/A	5.03
Acetaldehyde (paper)	0.34	N/A	0.34
Acrolein (paper)	0.13	N/A	0.13
Formaldehyde (paper)	0.24	N/A	0.24
Propionaldehyde (paper)	0.20	N/A	0.20
Acrylic Acid (process)	0.53	N/A	0.53

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FACILITY WIDE EMISSIONS			
Pollutant	**Uncontrolled**	**Controlled**	**PTE**
	TPY	**TPY**	**TPY**
Diethylene glycol monoethyl ether (DGME) (process)	1.88	N/A	1.88
3,3-Dichlorobenzidine (process)	5.49E-04	N/A	5.49E-04
Styrene (process)	0.09	N/A	0.09
PCBs (process)	5.49E-04	N/A	5.49E-04
Cyanide (process)	0.14	N/A	0.14
Monoethanolamine (T,V) (process)	1.89	N/A	1.89
CO_2e	17,987	N/A	17,987

Notes:
1. The greatest HAP, methanol, comes from the paper used in the corrugator. Residual HAPs, from the papermaking process, are emitted when the paper is heated in the corrugator.
2. N/A under controlled column indicates there are no controls for these pollutants.

PERMIT SHIELD

A facility is granted a permit shield: 1) upon explicit request in the TV application and 2) addressing regulations in TV OP Application Permit Shield form. Of the regulations that were listed in the TV OP application Permit Shield Form, those that BAQ disagrees with are listed in Condition G.1 of the TV permit, in addition to SC Reg. 61-62.5, Stds. 7 and 7.1, SC Reg. 61-62.61, Subpart M and 40 CFR 61, Subpart M. The facility will not receive a permit shield for any regulations not addressed in the Permit Shield Forms.

Explanation for exceptions listed in Condition G.1:

- S.C Regulation 61-62.1 – Sections of this regulation deal with construction permitting which is beyond the scope of the Title V permit shield.
- S.C. Regulation 61-62.61, Subpart M deals with asbestos projects which are beyond the scope of the Title V permit. The facility listed the entirety of S.C. Regulation 61-62.61 as not applicable. Since this regulation includes Subpart M, the entire regulation is listed as an exception to the permit shield.
- S.C. Regulation 61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories includes all NESHAP regulations to which the facility is not subject to all.
- 40 CFR 61 Subparts A and M, 62, 65-67, 70-78, 81, 82 Subpart F are regulations that include requirements for delegated programs and regulations that are not delegated. These regulations are not reviewed for applicability with respect to the Title V permit and so are not in the scope of a Title V permit review.
    - 40 CFR 61, Subpart M deals with asbestos projects which is beyond the scope of the Title V permit shield.

REGULATIONS

Not Applicable - Section II(E) *(Synthetic Minor)*

This facility has been determined to be a single source with the IP-Georgetown Mill (1140-0002), and thus, the facilities are major for PSD. However, IP-Georgetown Container does not have any synthetic minor limitations.

Applicable - Standard No. 1 *(Emissions from Fuel Burning Operations)*

Based on the size and construction date, the boiler (EU 04, equipment ID B-1) is subject to:

- Section I.B. - Opacity limit of 20%. There is no prescribed opacity monitoring for boilers of this size, 25.1 million Btu/hr. However, the facility is required to maintain a log of the startup and shutdown for each boiler due to the burning of No. 2 fuel oil in these boilers (Section I.C.). Visual inspections are required.
- Section II - PM emissions are limited to 0.6 lb/million Btu. No monitoring is required since the limit is not expected to be exceeded using natural gas or No. 2 fuel oil. A condition in the permit will limit the fuels used in this boiler to natural gas and No. 2 fuel oil.
- Section III - SO_2 emissions are limited to 2.3 lb/million Btu. The sulfur contents of natural gas and No. 2 fuel oil are low and exceeding the SO_2 limit for the boiler is not expected. No monitoring is required. A condition in the permit will limit the fuels used in these boilers to natural gas and No. 2 fuel oil.
- Section VI - Source testing for PM or SO_2 is not required for this sized boiler.

ID	PM Allowable (lb/hr)	SO_2 Allowable (lb/hr)	Uncontrolled Emissions		Controlled Emissions	
			PM (lb/hr)	SO_2 (lb/hr)	PM (lb/hr)	SO_2 (lb/hr)
B-1	15.06	57.73	0.59	1.27	N/A	N/A

Notes:
1 – The uncontrolled emissions for PM and SO_2 come from No. 2 fuel oil, the use of which is the worst case for these pollutants. No. 2 fuel oil is used as the backup fuel to natural gas.
2 – N/A under controlled columns indicates there is no control device on the boiler, and therefore, no controlled emissions.

Applicable - Standard No. 4 *(Emissions from Process Industries)*

Emission Units 01, 02, 03, 05, and 06 are all subject to 20% opacity limitation based on the installation dates of the equipment in each emission unit being after December 31, 1985. Semiannual visual inspections are required for these sources.

There are no particulate matter emissions from the EU 01, 02, and 03.

Process	Max Process Weight Rate (tons/hr)	PM Allowable at Max (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
EU 05 – Wastepaper Handling	3.83	10.08	8.04	N/A	No monitoring necessary since the uncontrolled emission rate is less than the allowable.
EU 06 – Starch Silo	25.0	35.43	4.5	0.125	No monitoring required since uncontrolled is less than allowable emission rate

Process	Max Process Weight Rate (tons/hr)	PM Allowable at Max (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring

Notes:

1. EU 05, Wastepaper handling throughput is based on the corrugator throughput of 3,048,480 Msf/year (as the limiting factor in the production process) and the baled rate. The baled rate is based on recent years actual baled weight scaled up.

   22.0 lbs baled/Msf x 3,048,480 Msf/yr x 1 ton/2000 lb x 1 year/8,760 hrs = 3.83 tons/hr

2. EU 06, Starch Storage and Handling throughput is based on the corrugator throughput of 3,048,480 Msf/year and the starch application rate of 3.5 lbs starch/Msf. It takes one hour to offload starch into the silo. Facility receives 213 loads of starch per year.

   3.5 lbs starch/Msf x 3,048,480 Msf/yr x 1 ton/2000 lb = 5,335 ton/yr starch throughput
   5,335 tons/yr / 213 loads/yr x 1 load/hr = 25.05 tons/hour

3. N/A under controlled column indicates no controls on the equipment.

Not Applicable - Standard No. 5 *(Volatile Organic Compounds)*

The Corrugator, Adhesive, and Impregnating Wax Application (EU ID 02, Equipment ID 1021) would be an existing affected source for this regulation for Part II.C. Surface Coating of Paper, Vinyl, and Fabric since it was installed in 1965. However, this regulation applies to facilities with potential emissions of 550 lb VOC in any one day (nominal size – 100 tpy) or more than 150 lb VOC in any one hour. The VOC emitted from the wax application is approximately 5.14E-02 lb/hr which is much less than the applicability threshold of 150 lb VOC in any one hour. The total VOC emissions from all sources at the facility are much less than any of the applicability rates. Therefore, this facility is not subject to this regulation.

Also, the Poultry Lines (EU ID 01) and the United Line (EU ID 02) were installed after the effective dates of this regulation and thus are not subject.

Not Applicable - Standard No. 5.2 *(Control of Oxides of Nitrogen (NOx))*

The boiler was installed prior to the effective date of this regulation and the burner assembly has not been replaced, and so it is not subject. However, if the facility replaces the burner assembly, then the boiler will become subject to this regulation.

Not Applicable - Standard No. 7 *(Prevention of Significant Deterioration)*

Although this facility is a major source under PSD due to being a single source with the IP-Georgetown Mill (TV-1140-0002), this facility has not had any PSD projects and does not have any BACT limits.

Applicable - 61-62.6 *(Control of Fugitive Particulate Matter)*

This facility is subject to the Section III of this regulation and is required to minimize fugitive dust emissions.

40 CFR 60 and 61-62.60 *(New Source Performance Standards (NSPS))*

Not Applicable - Subpart D *(Fossil-Fuel-Fired Steam Generators)*
Not Applicable - Subpart Db *(Industrial-Commercial-Institutional Steam Generating Units)*
Neither of these regulations apply to the Boiler, equipment ID B-1. These regulations apply to boilers greater than 250 and 100 million Btu/hr, respectively. B-1 is rated at 25.1 million Btu/hr.

Not Applicable - Subpart Dc *(Small Industrial-Commercial-Institutional Steam Generating Units)*
This regulation applies to boilers installed after June 9, 1989 with maximum heat input 100 million MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr. This regulation does not apply to B-1 since this boiler was installed prior to the applicability date of June 1989.

Not Applicable - Subpart K (*Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After June 11, 1973, And Prior To May 19, 1978;)*
Not Applicable - Subpart Ka *(Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After May 18, 1978, And Prior To July 23, 1984)*
Not Applicable - Subpart Kb *(Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) For Which Construction, Reconstruction, Or Modification Commenced After July 23, 1984)*
- The various tanks in ID 03 are not subject to any of these regulations since the installation dates for all of them are prior to the affected dates for these rules.
- Subpart Kb does not apply to the two wax tanks in the exempt sources list since these tanks do not store a volatile organic liquid.

Not Applicable - Subpart QQ (*Graphic Arts Industry: Publication Rotogravure Printing)*
This regulation applies to each publication rotogravure printing press where saleable paper products are printed, such as catalogues, direct mail advertisements, magazines, newspapers, periodicals, telephone directories, etc. IP-Container does not print saleable paper products or the like. The printing is done on corrugated-board (cardboard) containers which was not included in the list of the saleable paper products in the regulation.

Not Applicable - Subpart FFF *(Flexible Vinyl And Urethane Coating And Printing)*
This regulation applies to each rotogravure printing line used to print or coat flexible vinyl or urethane products. IP-Container does not print or coat flexible vinyl or urethane products as defined in this regulation.

Not Applicable - Subpart VVV (*Polymeric Coating Of Supporting Substrates Facilities)*
This regulation applies to each coating operation and any onsite coating mix preparation equipment used to prepare coatings for the polymeric coating of supporting substrates. *Polymeric coating of supporting substrates* means a web coating process that applies elastomers, polymers, or prepolymers to a supporting web other than paper, plastic film, metallic foil, or metal coil. This facility prints on and coats paper in the form of corrugated-board (cardboard) containers. Therefore, this rule does not apply to the operations at this facility.

Not Applicable - Subpart IIII (4I) *(Stationary Compression Ignition Internal Combustion Engines)*
Not Applicable - Subpart JJJJ (4J) *(Stationary Spark Ignition Internal Combustion Engines)*
The facility does not have any stationary internal combustion engines at the facility.

40 CFR 61 and 61-62.61 *(National Emission Standards for Hazardous Air Pollutants (NESHAP))*

Not Applicable - This facility does not emit the pollutants subject to this standard: asbestos, coke oven emissions, radio nuclide, radon, or vinyl chloride. However, it does emit benzene, beryllium, arsenic, and mercury from the fuel combustion source. But these emissions are not from the types of industries or sources or in the amounts that are covered by the Part 61 NESHAPs.

40 CFR 63 and 61-62.63 *(National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories)*

The emissions from the facility do not meet the major source thresholds; however, since the facility is a single source with the International Paper Georgetown Mill (1140-0002), for Title III (Part 63) purposes, it is considered a major source.

Applicable - Subpart KK *(Printing And Publishing Industry)*

IP-Container produces folding cartons (ie. corrugated-board (cardboard) and fiberboard sheets used to make containers) as included under *Wide-web flexographic printing.* Under Subpart KK, the affected source includes all the equipment in TV EUs 01, 02, and 03. The corrugator is included in the affected source as stand-alone equipment along with wide-web flexographic press or presses that are used to apply solids-containing materials to the same web or substrate. [40 CFR §63.821(a)(3)(i)(A)]

IP-Container complies with 63.821(b)(2) by applying no more than 881 lb/month (400kg/mo), every month, of organic HAP on wide-web flexographic printing presses. Complying with this section specifies that these sources are only subject to 63.829(e) and 63.830(b)(1). Records shall be maintained as required in 63.829(e) – total mass and organic HAP content of each material applied on wide-web flexographic printing presses each month and, upon request, submit to the Department. Reports shall be maintained as required in 63.830(b)(1) which covers the initial notifications. Only those HAPs applied to the paperboard are counted. The HAPs emitted from the paperboard itself do not qualify "as HAPs applied to the paperboard."

Applicable - Subpart DDDDD (5D) *(HAP Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters)*

IP-Container utilizes a 25.1 million Btu/hr boiler that is fired on natural gas as the primary fuel and No. 2 fuel oil as a backup. This boiler was installed in 1981 and is considered an existing source for this regulation. IP-Container has declared that No. 2 fuel oil will only be used during curtailment. This boiler is defined as a unit designed to burn gas 1 fuels and is not subject to the emission limits in Tables 1 and 2, or 11 through 15 of this subpart, or operating limits in Table 4 (63.7500(e)). Annual tune ups are required (Table 3 and 63.7540(a)(10)). The one-time energy assessment has been performed (Table 3). IP-Container has previously relayed this unit is not equipped with an oxygen trim system.

Not Applicable - Subpart ZZZZ (4Z) *(Stationary Reciprocating Internal Combustion Engines)*

The facility does not have any stationary reciprocating internal combustion engines (RICE) at the facility.

Not Applicable - Subpart JJJJ (4J) *(Paper and Other Web Coating)*

This regulation applies to new and existing facilities at which web coating lines are operated (40 CFR 63.3290). The corrugator is a web coating line because the material running through the corrugator is continuously coated with a wax. However, according to 40 CFR 63.3300, any web coating line that is stand-alone equipment

under subpart KK, which the owner or operator includes in the affected source under subpart KK, is not part of the affected source of this subpart. The corrugator has been included in the affected source under subpart KK as stand-alone equipment. Therefore, this regulation does not apply.

Not Applicable - Subpart HHHHH (5H) *(Miscellaneous Coating Manufacturing)*
Previously, the facility communicated in correspondence received on March 1, 2010, that the Corrugator Adhesive Mix Process (EU ID 03, Equipment ID 1021) would be an affected source subject to the requirements of 40 CFR 63 Subpart KK. Under Subpart KK, the Adhesive Mix Process is not included in the affected source nor as stand-alone equipment. However, in the applicability of Subpart HHHHH (5H) (40 CFR 63.7985(d)(2)), the requirements of this subpart do not apply to sources that are affiliated operations located at an affected source under Subpart KK. According to 63.7985(d)(2), affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater. The Corrugator Adhesive Mix Process (EU ID 03, Equipment ID 1021) mixes the starch and additives as the adhesive for coating the substrate, aka. paperboard, processed in the corrugator. Thus, the Corrugator Adhesive Mix Process is an affiliated operation to those subject to Subpart KK and therefore, is not subject to Subpart 5H.

Not Applicable - 61-62.68 *(Chemical Accident Prevention Provisions)*
This facility does not store any chemicals specified by this regulation above the threshold quantities required to trigger applicability to this regulation.

Not Applicable - 40 CFR 64 *(Compliance Assurance Monitoring)*
CAM applies if the uncontrolled emissions from a source with a control device are greater than 100 tpy. The uncontrolled emissions from the Starch Silo are less than 100 tpy. Therefore, this regulation does not apply. No other sources at the facility have an add-on control device.

AMBIENT AIR STANDARDS REVIEW

Applicable - Standard No. 2 *(Ambient Air Quality Standards)*
Previous modeling has demonstrated compliance with this requirement. See last modeling summary.

Applicable - Standard No. 8 (state only) *(Toxic Air Pollutants)*
This facility is subject to this regulation. However, the sources at the facility that emit TAPs are subject to and in compliance with 40 CFR 63, Subpart KK. Therefore, this facility is exempt from this requirement.

PERIODIC MONITORING					
ID	**Regulatory Requirement**	**Measured Parameter**	**Required Monitoring Frequency**	**Reporting Frequency**	**Monitoring Basis/ Justification**
B-1	SC Reg, 61-62.5, Std No. 1	Opacity	Semiannual	Semiannual	The boiler is permitted to burn No. 2 fuel oil which could cause some opacity.

Company Name:	International Paper - Georgetown Container	**Permit Writer:**	Katharine K Buckner
Agency Air Number:	1140-0044	**Date:**	DRAFT
Permit Number:	TV-1140-0044 v2.0		

PERIODIC MONITORING					
ID	**Regulatory Requirement**	**Measured Parameter**	**Required Monitoring Frequency**	**Reporting Frequency**	**Monitoring Basis/ Justification**
B-1	SC Reg, 61-62.5, Std No. 1	PM	N/A	N/A	The boiler can burn natural gas or No. 2 fuel oil. The use of either of these does not exceed the allowable emission rate.
B-1	SC Reg, 61-62.5, Std No. 1	SO_2	N/A	N/A	The boiler can burn natural gas or No. 2 fuel oil. The use of either of these does not exceed the allowable emission rate.
B-1	40 CFR 63, Subpart DDDDD (5D)	Tune Ups	Annual	Annual	As required by §63.7540
EUs 01-03	40 CFR 63, Subpart KK	HAPs	total mass and organic HAP content of each material applied on wide-web flexographic printing presses each month	Maintain records on site for 5 years. Keep on site and submit upon request.	As required by §63.829(e)
EU 01, 02, 03, 05, and 06	SC Reg 61-62.5, Std No. 4	Opacity	Semiannual	Semiannual	Visual inspections are required
05	SC Reg 61-62.5, Std No. 4	PM	N/A	N/A	No monitoring necessary since the uncontrolled emission rate is less than the allowable.
06	SC Reg 61-62.5, Std No. 4	PM	N/A	N/A	No monitoring necessary since the uncontrolled emission rate is less than the allowable.

PUBLIC NOTICE

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II(N) and SC Regulation 61-62.70.7(h).

Company Name:	International Paper - Georgetown Container	**Permit Writer:**	Katharine K Buckner
Agency Air Number:	1140-0044	**Date:**	DRAFT
Permit Number:	TV-1140-0044 v2.0		

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.