

# FACILITY PROFILE

### Irving Pulp & Paper Limited Les Pâtes & Papier Irving, Limitée Reversing Falls Mill Complex Saint John, New Brunswick

Prepared by: Authorizations Branch Department of Environment & local Government November 2021

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# BACKGROUND

Irving Pulp & Paper, Limited Les Pâtes & Papier Irving, Limitée operates a Kraft and Tissue Mill Complex that consists of a Kraft Pulpmill that has a production rate of approximately 1000 air dry tonnes per day of bleached kraft pulp from both hardwood and softwood furnish and a Tissue Mill that has a production rate of approximately 200 machine dry tonnes per day of tissue. The Mill Complex was commissioned in the early 1990's and is situated in the vicinity of the Reversing Falls on the Saint John River in the City of Saint John, New Brunswick.

As required under the Air Quality Regulation - Clean Air Act, Irving Pulp & Paper, Limited, Kraft and Tissue Mill Complex is considered a source and therefore, must apply for and obtain an Air Quality Approval to Operate from the Department. The facility is required to conduct its operations according to conditions outlined in the issued Air Quality Approval aimed at preventing unfavorable air quality conditions. The conditions are generally wide-ranging and may include such requirements as:

- limitations on operational parameters;
- requirements for testing and monitoring emissions from specific unit operations;
- requirements for testing and monitoring the ambient air quality surrounding the facility;
- requirements to operate air pollution control equipment;
- limits on emissions that are approved to be released to the atmosphere;
- provisions for equipment upgrade and/or maintenance;
- requirements for environmental emergency and/or compliance reporting; and
- other conditions aimed at minimizing the facility's impact on the environment.

The Regulation provides for approvals to be issued by the Minister of Environment & Local Government for a specified period, not to exceed five years.

The Approval to Operate the Irving Pulp & Paper, Limited Les Pâtes & Papier Irving, Limitée Kraft and Tissue Mill Complex (identified as I- 9509) issued under the Air Quality Regulation expires on May 31, 2022. This document is intended to provide: background information on the Irving Pulp & Paper, Limited Kraft and Tissue Mill Complex and the Air Quality Approvals process; a description of the Kraft and Tissue Mill Complex process, a list of the potential air quality impacts associated with the facility; and a compliance review of the Air Quality Approval to Operate.

# PROCESS DESCRIPTION

The Kraft and Tissue Mill Complex consists of a number of processes within the Complex as a whole. These processes include the following:

- Woodchip Storage and Preparation
- Kraft Pulping
- Bleach Production and Bleaching
- Pulp Production
- Tissue Production
- Chemical Recovery
- Foul Condensate Steam Stripping
- Causticizing
- Lime Production
- Non-Condensible Gas Incineration System; and
- Steam Plant

# WOODCHIP STORAGE AND PREPARATION

This is the area where the purchased wood chips are stored outside, and also consists of the unit operations and ancillary equipment used to prepare the woodchips for the Kraft Pulping process.

In 2016 a new chip handling process and continuous cooking digester plant was installed. The chip handling project included a new chip reclaimer, 3 new chip reclaim belt conveyors, new pulp screening equipment and conveyors and a 2000m<sup>3</sup> screened chip storage silo.

#### KRAFT PULPING

This process produces kraft pulp from the woodchips. In 2016 a new chip handling process and continuous cooking digester plant was installed. This included a chip impregnation vessel (ImpBin) and a continuous digester cooking vessel.

The impregnation of the chips with cooking liquors is performed in the impregnation vessel (temperature of 100°C to 110°C) at atmospheric pressure. Chips from the storage silo enter the top of the ImpBin where they are placed in contact with a mixture of cooking liquors.

Following impregnation, the chips are discharged from the impregnation vessel to the digester via a high pressure feeder where the wood chips become pulp.

The digester cooks the chips at elevated temperature and pressure in a solution of sodium hydroxide, sodium sulphide and other pulping chemicals, often collectively referred to as "white liquor". The cooking process causes the lignin that holds the wood fibres together in the woodchip to dissolve in the liquor, thereby releasing the individual fibres. Spent black liquor from the cooking process is sent to the evaporation plant where it is prepared for burning to recover energy and cooking chemicals for reuse in the process.

Diluted non-condensable gases (DNCG) are fully contained within the cooking process and collected from a discharge tank, a filtrate buffer tank and from the top of the ImpBin. These collected gases are diluted with fresh air and sent with other DNCG from other mill processes to the existing mill-wide DNCG system. As the ImpBin is operated with a cold top, only diluted gases are collected. There are no process vents to atmosphere in this entirely enclosed system and all DNCG's will be collected and incinerated using the mill's existing DNCG system.

# BLEACH PRODUCTION AND BLEACHING

This process produces an aqueous solution of Chlorine Dioxide (CIO2) which is used for bleaching. This area also chemically bleaches the brownstock (pulp) produced from the Kraft Pulping. In the bleaching process, the brownstock is changed from the brown to white (bleached pulp).

# PULP PRODUCTION

This process cleans, thickens, dries, bales and stores the bleached pulp for shipment to markets or used to supply the Tissue Mill. Approximately, 20% of the bleached pulp from the Kraft Pulping process is sold as market pulp and about 80% is used in the Tissue Paper Production.

A pulp dryer modernization project has been ongoing at the mill since 2019. The project was registered under the EIA for project assessment and was issued a Certificate of Determination on September 30, 2016 and an Approval to Construct on May 1, 2019.

IPP is replacing the three (3) existing pulp dryers and associated equipment with one (1) new best-available technology dryer. The existing dryers remain in place and operational during the construction of the new dryer. The project comprises installing and operating a bleach stock screening system, a new pulp dryer and a new pulp baling line.

The project is expected to be completed by June, 2022 with any updates being added to the renewed Approval, as required.

Air emissions will remain similar to the current pulp dryer operations. Energy consumption will increase slightly based on a small pulp production increase of 5.2%. The pulp dryer is heated by steam, which will have minimal change to the biomass fuel consumption. There are no emission stacks associated with the pulp dryer. Overall GHG emissions will decrease due to the reduction in shunting bales

from the mill to the tissue mill and storage as the new process has the dryer closer to the tissue mill and includes a new warehouse for storage.

### TISSUE PAPER PRODUCTION

This process blends and/or mixes the bleached pulp produced from the Kraft Pulping and other paper making additives. The pulp mixture enters the head box of paper machines where it is spread onto a fine mesh multiple wire screen that is suctioned to remove moisture and form a sheet. The somewhat drier pulp mixture is picked up by felt wire which goes through a press to further remove moisture on a large drum type dryer, known as the Yankee Dryer, which dries the sheet to product specifications. The product is rolled in large rolls, which are rewound and sent to the converting plant for final preparation before shipment.

# CHEMICAL RECOVERY

This process recycles the spent cooking liquor (also referred to as weak black liquor) from the Brown Stock Washing process to a series of evaporators that drive off the water portion of the liquor to form strong black liquor. Vapours that are produced in the evaporation process are sent to a surface condenser where clean and foul condensate is produced. The foul condensate is directed to the Foul Condensate Steam Stripper for further processing. The strong black liquor is directed onto the Recovery Boiler to be burned. The Recovery Boiler is of low odour design and has a black liquor firing capacity of 1.8 million kilograms of dry liquor solids per day. The organic portion of the liquor burns in the boiler with heat energy released to produce steam. The inorganic portion of the liquor stream is reduced to molten solids and settles on the furnace floor where it is drained to a dissolving tank. Weak wash from the Causticizing Process is added to the solids in the dissolving tank to form Green Liquor, which is then directed to the Causticizing Process. The Recovery Boiler exhaust gas is directed to an electrostatic precipitator and crossflow scrubber unit in series, which removes the majority of the particulate matter, Total Reduced Sulphur (TRS) compounds and other sulphur compounds from the exhaust gas steam prior to discharge to the atmosphere.

The Recovery Boiler utilizes No.6 Fuel Oil as a back-up fuel source in the event the recovery cycle is interrupted. The boiler generates approximately 240,000 kilograms per hour of high pressure steam that is used for process, heating and supply energy for electrical generation.

# FOUL CONDENSATE STEAM STRIPPER

This process strips the foul condensate from the evaporators, evaporator surface condenser and digester condensers. The foul condensate from these units is collected in the stripper feed tank and then pumped to the top of the steam stripper column. Steam is injected in the base of the column, and when the steam contacts

the condensate, the Total Reduced Sulphur (TRS) and Methanol components in the foul condensate are stripped out. Clean condensate exits at the bottom of the column and is used as a wash shower in the Causticizing and Brownstock operation. The Stripper Off-Gases (SOG's) from the steam stripper are directed to the No. 3 Woodwaste Boiler or Lime Kiln for incineration.

Condensates from the 5<sup>th</sup> stage of the evaporator train are processed through a Reverse Osmosis (RO) system, which produces a very clean product (Permeate) which is re-used in other parts of the mill process. The concentrated products from the RO System are burned in the No. 3 Woodwaste Boiler.

# <u>CAUSTICIZING</u>

This process regenerates sodium hydroxide cooking chemicals used in the digesters. The Green Liquor, produced from the Recovery process, is now directed through clarifiers where impurities are removed. It is mixed with lime in the slaker and processed through a series of causticizers, to allow time for reaction, in order to convert to white liquor. In the causticizers and clarifying processes, a reaction occurs causing a precipitate of calcium carbonate, referred to as lime mud, which is removed from the clarifiers, producing clean white liquor which is reused in the digesters. The lime mud is washed and sent to the Lime Kiln.

# LIME PRODUCTION

This process regenerates the lime mud generated from the Causticizing process. The lime mud slurries are processed over pre-coat filters, which produce a 75-78 % air dried product, which is burned in the Lime Kiln to produce calcium oxide. The Lime Kiln burns natural gas, stripped off-gases (SOG's) and No. 6 Fuel Oil as a backup fuel source and is equipped with an electrostatic precipitator (ESP). The Lime Kiln is equipped with continuous emission monitoring for Total Reduced Sulphur (TRS) control.

# NON-CONDENSIBLE GAS INCINERATION SYSTEM

This system collects Dilute Non-Condensible and Brownstock Gases (DNCG) and Non-Condensible Gases (NCG) from the digester system in the mill and directs these gases to the No.3 Woodwaste Boiler for incineration. In the event the No. 3 Woodwaste Boiler is off-line, the NCG gases are then directed to a dedicated back-up incinerator system.

# STEAM PLANT

The plant consists of the following unit operations and ancillary equipment:

- No. 2 Power Boiler, which is a back-up boiler, utilizes No. 6 Fuel Oil as the primary oil and has a steam generation rate of approximately 65,000 kilograms per hour;
- No. 3 Woodwaste Boiler utilizes purchased and self-generated woodwaste, No. 6 Fuel Oil, natural gas, and up to 25% Flakeboard woodwaste and has a steam generation rate of approximately 160,000 kilograms per hour. This boiler is the primary burn point of the Non-Condensible Gas Incineration System.

# AIR POLLUTION CONTROL

There are several systems in place at the Facility to control air emissions and ensure day-to-day operations do not adversely affect the receiving environment; these controls are outlined below.

The Recovery Boiler is equipped with an electrostatic precipitator and scrubber which remove a significant amount particulate matter from the exhaust gas, as well as Total Reduced Sulphur (TRS) compounds. The scrubber exhaust stack is equipped with a continuous emission monitor for Total Reduced Sulphur (TRS) monitoring.

The No. 3 Woodwaste Boiler is equipped with an electrostatic precipitator to remove particulate matter from the exhaust gas, and an SO<sub>2</sub> scrubber to remove sulphur compounds. It is also the primary burn location for stripped off-gases (SOG's) from the foul condensate stripper as well as non-condensable gases (NCG) and dilute non-condensable gases (DNCG). In the event of an upset with the No. 3 Woodwaste Boiler, the non-condensable gases (NCG) will be directed to the backup incinerator.

The lime kiln is equipped with an electrostatic precipitator to remove particulate matter from the exhaust gas, as well as continuous emissions monitoring for Total Reduced Sulphur (TRS) control. It also serves as the backup burn location for the stripped off-gases (SOG's) in the event of a process upset with the No. 3 Woodwaste Boiler.

The Chlorine Dioxide Generator Tailgas scrubber is equipped with a continuous emissions monitor for Chlorine Dioxide (ClO<sub>2</sub>) levels.

In order to monitor impact on the surrounding area of the Facility, there are three off site ambient air quality monitors in operation. These monitor ground level concentration of Total Reduced Sulphur (TRS).

# POTENTIAL AIR QUALITY IMPACTS

The following list of potential air quality impacts has been identified and is the focus of present and future Air Quality compliance.

- Particulate Matter (PM), Sulphur Dioxide (SO<sub>2</sub>), Total Reduced Sulphur (TRS), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Carbon Dioxide (CO<sub>2</sub>) from various point and area sources within the operation of the Steam Plant, Kraft Pulping, Chemical Recovery, and Lime Production;
- Chlorine (Cl<sub>2</sub>), and Chlorine Dioxide (ClO2) from point sources within the Bleach Production and Bleaching;
- Dilute Non-Condensible Gases (DNCG), Non-Condensible Gases (NCG), and Stripped Off-Gases (SOG) from Kraft Pulping Process, Chemical Recovery Process, and Foul Condensate Steam Stripper;
- Volatile Organic Compounds (VOCs) from the operation of the dryers in the Pulp Production and Tissue Paper Production; and
- Odours, Fugitive Particulate Matter, and Noise from various point and area sources that make-up the Facility.

# AIR QUALITY COMPLIANCE AND ENFORCEMENT

Irving Pulp & Paper, Limited, Kraft and Tissue Mill Complex is required to comply with the Air Quality Regulation - Clean Air Act and operate under terms and conditions established in its Approval to Operate, issued pursuant to Section 3 of the Air Quality Regulation - Clean Air Act. Conditions are aimed at ensuring that the facility's environmental impact during its day-to-day operations does not adversely affect air quality in surrounding areas, as well as regionally and globally. Any violations of the conditions of Approvals may be subject to compliance and enforcement measures as described in the Department of Environment and Local Government's Compliance and Enforcement Policy.

# Current Air Quality Approval to Operate Terms and Conditions and Compliance History

The main terms and conditions of the current Air Quality Approval to Operate I-9509 (issued on June 1, 2017 and expires on May 31, 2021) and compliance history over the life of the Approval are summarized in the paragraphs that follow:

# #24 Operate the Facility such that the annual Sulphur Dioxide (SO<sub>2</sub>) in tonnes released from the facility is less than 2000 tonnes;

The Facility has been in full compliance with this condition. Sulphur Dioxide (SO<sub>2</sub>) emissions have been below the required limits. The following table shows SO<sub>2</sub> emissions from Irving Pulp & Paper for the 2017 to 2020 calendar years, as required in their current Air Quality Approval to Operate.

Year IPP Reported SO<sub>2</sub>

Сар	2000 tonnes
2017	1059
2018	750
2019	776
2020	575

# #25 Ensure the Maximum Ground Level Concentration Limits provided in Schedule B of this Approval are at no time exceeded at any location outside the boundaries of the Facility.

The estimated concentrations of emissions from the forty-one (41) contaminants in Schedule B (using emission factors) are reported annually by IPP. In 2019 an updated ambient air model was completed that updated the limits for maximum ground level concentrations and demonstrated the ground level concentrations of forty (40) listed contaminants were well within the limits. The highest concentration of Chlorine Dioxide (CIO<sub>2</sub>) was calculated to be 3.1 ug/m<sup>3</sup>, which occurred to the east of the facility at the facility boundary along the shore line. In general, the model predicted concentrations below the 2 ug/m<sup>3</sup> limit beyond distances greater than 500 m from the fence line.

# #26 Operate the Facility such that the Teller Scrubber, Woodwaste Boiler and Lime Kiln conform with the following limiting criteria:

Point Source	Parameter Limiting Criteria
Teller Scrubber Exhaust Stack	Particulate Matter (PM) concentration is limited to a maximum of 250 milligrams per cubic metre of dry gas corrected to 21 degrees Celsius and 101.3 kilopascals. Total Reduced Sulphur (TRS) concentration is limited to a maximum of 15 parts per million by volume, at stack conditions for any 4 hour rolling average.
Woodwaste Boiler Exhaust Stack	Particulate Matter (PM) concentration is limited to a
No. 1/No. 2 Lime Kiln Exhaust Stacks/Lime Kiln Exhaust Stack	Particulate Matter (PM) emission rate is limited to a maximum of 0.75 kilograms per unbleached air dry tone of pulp production. Total Reduced Sulphur (TRS) concentration is limited to a maximum of 20 parts per million by volume, at stack conditions for any 4 hour rolling average.

<u>Particulate Matter:</u> The Facility has been in full compliance with Particulate concentration limits over the life of the current Air Quality Approval to Operate. The

table that follows provides the historical results of the average Particulate Matter (PM) concentration being released from the Teller Scrubber exhaust stack, the Woodwaste Boiler exhaust stack and the Lime Kiln Exhaust Stack based on annual stack testing:

Year	IPP Reported Particulate Matter (PM)							
Point Source	Teller Scrubber (Recovery Boiler)Exhaust Stack (Concentration - mg/Dm3 @ 8% O <sub>2</sub> )	Woodwaste Boiler (No. 3) Boiler) Exhaust Stack (Concentration - mg/Dm3 @ 12 % CO <sub>2</sub> )	Lime Kiln Exhaust Stacks (Rate - kg/ubadtp)					
Caps	250	250	0.50					
2017	33.1	38.4	0.0637					
2018	25.8	33.5	0.0327					
2019	28.2	29.8	0.0602					
2020	26.6	21.0	0.07					
2021	36.3	7.25	0.18					

<u>Total Reduced Sulphur</u>: The Facility remained in compliance throughout the lifetime of the Approval. The table that follows illustrates the annual average (compiled from the 4 hour rolling averages) concentration of the Total Reduced Sulphur in the Recovery Boiler exhaust gas and the Lime Kiln exhaust gas being released to the atmosphere from the Facility.

Year	IPP Reported Total Reduced Sulphur (TRS)					
Point Source	Teller Scrubber Exhaust (Recovery Boiler) Stack (Concentration - ppm)Lime Kiln Exhaust Stack (Concentration - ppm)					
Caps	15	15				
2017	1.97	1.96				
2018	2.35	1.37				
2019	3.16	1.43				
2020	3.68	1.72				

- #35 Each year the Approval Holder shall undertake two source testing events to determine the Particulate Matter concentration in milligrams per cubic metre and emission rate in grams per second released to the environment from the following Mill Complex Emission Sources:
  - Teller Scrubber Exhaust Stack;
  - Woodwaste Boiler Exhaust Stack; and
  - Lime Kiln Exhaust Stack.
- #38. The source testing events as required in item 35 under the Terms and Conditions section of this Approval shall be subject to the following additional requirements and exemptions:

(a) In any given year, if the #2 Power Boiler and/or the Tissue Boiler are operated for more than 700 hours total for that year, the Approval Holder shall ensure that the Power Boiler Exhaust Stack and/or the Tissue Boiler Exhaust Stack are included in the second round source testing event for that year;

(b) Should the results of the first source testing event of a given year be accepted by the Department, the Approval Holder will be exempt from completing the second source testing event if the results of the first source testing event are equal to or less than the limiting criterion shown in the table below.

Point Source	Parameter Limiting Criteria
Teller Scrubber Exhaust Stack	Particulate Matter (PM) concentration is limited to a maximum of 100 milligrams per cubic metre of dry gas corrected to 21
	degrees Celsius and 101.3 kilopascals.
Woodwaste Boiler Exhaust Stack	Particulate Matter (PM) concentration is limited to a maximum of 100 milligrams per cubic metre of dry gas corrected to 21 degrees Celsius and 101.3 kilopascals and 12% carbon dioxide.
Lime Kiln Exhaust Stack	Particulate Matter (PM) emission rate is limited to a maximum of 0.30 kilograms per unbleached air dry tonne of pulp production.

a) In 2019 the #2 Power Boiler was in operation for 863 hours, meeting the requirement for stack testing for this source. The #2 Power Boiler is a backup boiler used primarily during mill-wide maintenance shutdowns and during maintenance on the Woodwaste Boiler. During the 2019 operating year, IPP had a 20-year turnaround on the Woodwaste Boiler, which lengthened the uptime on the #2 Power Boiler compared to other years. This is not expected to occur again in the foreseeable future.

The #2 Power Boiler stack is not equipped with sampling ports and it was considered a structure risk to install sample ports on this aged stack. IPP

requested an exemption to the source testing requirement and use emission factors to calculate the emissions. The request was approved.

An updated condition will be considered for managing this emission source in the renewed approval.

b) Source testing results from the first event throughout the lifetime of the Approval permitted IPP to perform only one source testing event each year.

# #39 Undertake source testing prior to August 31, 2019 to determine the Chlorine and Chlorine Dioxide concentration being released into the environment from the Bleach Plant Vents and /or Stacks.

In 2018 source testing was completed on seven (7) stacks from the bleachery unit with the following results:

Emission Rate	Cl <sub>2</sub>	CIO <sub>2</sub>
(kg/h)	0.420	0.297

The requirement for a source testing event on this unit once in the lifetime of the approval has been in place for several approvals.

#### #41 Ensure that three ambient air quality monitors capable of measuring Total Reduce Sulphur are set up surrounding the Facility.

The Facility has been in full compliance with this condition over the life of the Air Quality Approval to Operate as monitors are set up and maintained at Bridge Street, Milford and Sherbrooke Stations.

#43 Prior to March 31, 2019, the Approval Holder shall complete an air dispersion model update from the 2004 study to include any modifications and additions to the emissions of the Facility. The Air Dispersion Model will use historical source emissions data and calculated concentrations of contaminants listed in Schedule B to provide an estimate of the ambient air concentrations for each of these contaminants. The Study shall include a review of the limits for each of the contaminants of concern for comparison.

The air quality criteria listed in Schedule B was reviewed and updates to ground level concentration limits for 13 contaminants were suggested per the most recent version of the Ontario Air Contaminant Benchmark list.

Based on the current air dispersion study, only one contaminant was predicted to exceed the updated ground level concentration of 2 ug/m<sup>3</sup> at the IPP fence line – Chlorine Dioxide. The predicted ground level concentration for Chlorine Dioxide was  $3.1 \text{ ug/m}^3$  which occurred to the east of the facility at the facility boundary along the shore line. In general, the model predicted concentrations below the 2 ug/m<sup>3</sup> limit beyond distances greater than 500 m from the fence line.

Most of the air contaminants were predicted to be less than 50% of the applicable ground level concentration criteria and are not considered contaminants of concern at this mill.

#52 Provide Monthly Air Emission Report that provides a summary on: any air quality incidents for that month; results of the continuous emission monitoring results for Total Reduced Sulphur (TRS) in the Recovery Boiler and Lime Kiln exhaust stacks for that month showing hourly and 4 hour average trends; any source testing results for source testing conducted at the Facility for that month; any operating problems related to continuous emissions monitors or ambient air monitors for that month; a summary of any DNCG, NCG, or SOG venting incidents for the month; and volume of used oil used and analysis for that month.

The Facility has been in full compliance with this condition over the life of the Air Quality Approval to Operate.

#53 Provide an Annual Report that provides: the amount of fuel burned for the year and its sulphur content, and a calculation of the annual emission of sulphur dioxide, particulate matter, nitrogen oxides in tonnes from all combustion sources and process sources at the facility; a calculation of the annual emission in tonnes of sulphur Dioxide produced from the incineration of DNCGs, NCGs and SOGs; the annual inventory of air contaminants identified through Schedule B and the mill complex survey which started in 2004.

The Facility has been in full compliance with this condition over the life of the Air Quality Approval to Operate.

The following table shows the annual emissions of SO<sub>2</sub>, PM and NO<sub>x</sub> from the facility in the lifetime of the Approval:

Year	SO <sub>2</sub> (Tonnes)	PM Total (Tonnes)	NOx (Tonnes)	
2017	1059	161	948	

2018	750	94	933
2019	776	128	988
2020	575	132	1041

# Enforcement

Enforcement options used by the Department of Environment and Local Government are outlined in the Department's *Compliance and Enforcement Policy*. These may include but are not limited to: schedules of compliance, verbal and written warnings, orders, and prosecutions. Although not specifically outlined in the Policy, it is also possible to amend approvals with more stringent conditions, both during its valid period or at the time of renewal, to address specific compliance issues or to improve the environmental impact of the facility. Most recently, a new Regulation under the Clean Air Act allows for the issuance of "administrative penalties" for minor violations as an alternative to traditionally used enforcement options.

During the life of the current Approval, Irving Pulp & Paper, Limited, Kraft and Tissue Mill Complex has had no warnings or orders issued, nor have there been any prosecutions initiated by this agency during this period, related to air quality.

# **COMPLAINTS & OCCURRENCES**

# **Complaints**

Irving Pulp & Paper receives calls related to air quality, noise and other issues in Saint John. The table below shows the number of calls received by the mill in the last five years related to air quality. The Department has on occasion received complaints but typically the complaints are made directly to the mill staff.

Concern									
Year	Odour	Noise	Light	Ash Fallout	Plume Colour	Sawdust	Total		
2017	7	13	0	13	0	0	33		
2018	10	1	0	2	1	1	15		
2019	2	8	2	2	0	1	15		
2020	5	6	0	3	0	0	14		
2021*	6	12	0	2	5	1	20		

# Concern calls received directly by the mill

\*Including January - September 2021

# **Occurrences**

Irving Pulp & Paper is required to send notifications to the Department in the case of an occurrence that may change the normal operations and air emissions at the mill. The table below shows the number of occurrences related to air quality in the last 5 years.

	NCG	Teller Scrubber	Teller Scrubber Analyzer Failure	SOG Rupture/	Ambient Monitor	Bark Pile /	Other Venting	
Year	Venting	Bypassing		Venting	Outage	Fire		Total
2017	0	10	0	2	0	3	3	18
2018	1	5	2	1	1	3	0	13
2019	0	6	1	2	0	2	1	12
2020	0	8	2	5	0	2	2	19
2021	3	10	3	6	1	0	1	24

#### Occurrences at the mill

\*Including January – September 2021

In general, the complaints and occurrences related to air quality at the mill are considered a nuisance event as opposed to an environmental issue. Standard Operating Procedures related to Ash Pile Management and Fugitive Dust Control are in place to help mitigate ash and dust around the site.

# PUBLIC OUTREACH

Irving Pulp & Paper, Limited indicates that its position on public outreach is to foster positive community relations by maintaining an open-door policy, whereby any member of the public or interested party wishing to obtain further information about the operation may contact Irving Pulp & Paper Inc. during regular business hours. The facility may also make arrangements for tours of the facility or other community interaction.

Facility staff members are on call 24 hours a day to respond to any complaints directed from the public. The company also makes efforts to notify the public in instances where environmental events may have an impact on nearby residents.

# CONTACT INFORMATON

For further information on the operation of Irving Pulp & Paper, Limited, Kraft and Tissue Mill Complex please contact:

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