

History of major industrial accidents

A major industrial accident is an unexpected and sudden event occurring in an industrial establishment or site, consequences of which extend beyond the boundaries of the site. The nature and quantity of products involved determine potential impacts on humans and the environment.

There has been no major industrial accidents involving sulphur dioxide (SO₂) or ammonia (NH₃) in the last 15 years.

What is sulphur dioxide (SO₂)?

- Sulphur dioxide (SO₂) is used in the manufacturing of wood fibre cooking acid (to dissolve lignin and recover cellulose).
- It is stored under pressure as a liquid in outdoor tanks.
- When released, it evaporates into the air as a colorless gas with a strong, pungent odor.
- It is heavier than air and non-flammable.

See section "Potential health effects of the Sulphur dioxide (SO₂)"

What is ammonia (NH₃)?

Used in the same process as sulphur dioxide (SO₂), the other hazardous substance present at the plant that can have an off-site impact, ammonia (NH₃), is highly volatile and has a pungent odor. NH₃ can have the following potential health impacts (severity of symptoms may vary depending on the conditions of exposure):

- Headaches, nausea and vomiting
- Burning sensation in nose and throat, coughing and difficulty breathing
- Irritating and corrosive product for skin, eyes, respiratory and digestive tracts

What are our security measures?

Safety is a fundamental value for RYAM. By focusing on prevention, training and preparation of emergency personnel, the Company makes every effort to prevent accidents that could affect its employees, the community and the environment.

Main infrastructure safety mechanisms

- Indoor and outdoor detection systems and alarm systems, supervised at all times
- Automatic shut-off system in case of leak (liquid SO₂ line)
- Tank and valve inspection and preventive maintenance systems
- Retention dike surrounding the ammonia tank

Main operational safety mechanisms

- A detection system calibration program
- Routine inspection program for at risk facilities
- Emergency Measures Plan in collaboration with local authorities
- Specialized Emergency Response Team (HAZMAT)
- Annual training and exercise program for responders
- Siren to notify citizens living near facilities
- Automated call system to notify members of the Municipal Civil Security Organization (OMSC) and local institutions

What are possible repercussions related to a major leak of sulphur dioxide (SO₂)?

The gas can travel to communities within a radius of 10.8 km of the facility. The sulphur dioxide (SO₂) cloud will follow the wind's direction. In all circumstances, concentrations decline rapidly as one moves away from the plant. The population may be more or less inconvenienced depending on age and health.

Anticipated impacts on water and soil are negligible. For animals, impacts would be similar to those anticipated for humans. Vegetation could, however, be subject to burning effects.

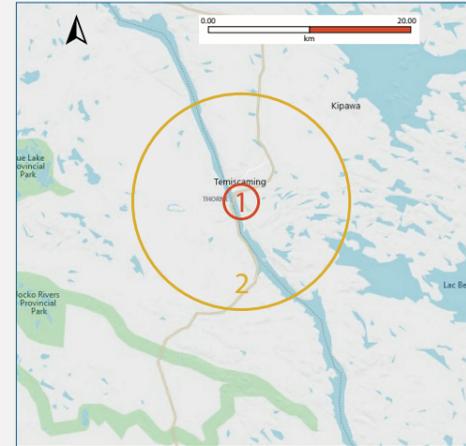
Potential health effects of the Sulphur dioxide (SO₂):

Zone 1 : 1.6 km (in red)

- Respiratory distress
- Severe eye, skin, nose and throat irritation
- Potentially life-threatening

Zone 2: 10.8 km (in yellow)

- Difficulty breathing
- Coughing
- Eye, skin, nose and throat irritation



Major industrial accident guidelines

How will I be advised?

Residents near the Temiscaming site will be alerted by the sound of the siren. Other citizens will be notified by local authorities. It should be noted that tests to ensure proper operation of the siren are performed on a monthly basis.

What to do in case of an alert?



Quickly enter the nearest building.

- Avoid breathing harmful products.
- Do not stay outside or in a vehicle.
- Close and caulk doors, windows and ventilation and move away from them.



Follow instructions given by the authorities.

- Stay together.
- Refer to your municipal/area authorities communication channels to better understand instructions to follow.
- To obtain a status on the situation at a moment in time, you may also contact the information number set up by RYAM (Temiscaming): 1-844-770-9272 (information message).



Do not pick up your children from school or daycare so as not to expose yourself or your children.

- These establishments will have already been notified and will have received required safety instructions.



Free up emergency service telephone lines in order for such service individuals to be able to coordinate amongst themselves.

- If you are experiencing symptoms or in case of possible exposure
 - Contact Info-Santé at 811
 - Contact your provincial Poison Control Centre
 - Quebec 1-800-463-5060
 - Ontario 1-800-268-9017
 - Call 911 in emergency situations only



When the danger has been averted, the end of the alert will be issued by local authorities.

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ENVIRONMENTAL EMERGENCY MANAGEMENT FACT SHEET

Sulphur dioxide and Ammonia
August 2020

Rayonier Advanced Materials is a world leader in high purity cellulose, a naturally occurring polymer essential for the production of LCD screens, filters, pharmaceutical products and many other products. The Company also produces lumber, high-yield pulp, paper and cardboard.

Rayonier AM Canada Industries Inc. (RYAM), a subsidiary of Rayonier Advanced Materials, employs 1,400 people in Quebec, including 700 at its Temiscaming site. Present in the region since 1919, the well-being of its employees, their families and community members is a fundamental value of the Company.

Today, the Temiscaming site includes three main operations that manufacture the following products: high purity cellulose, high-yield pulp and coated cardboard.

This leaflet is mainly dedicated to **sulphur dioxide (SO₂)**, as it is the hazardous substance present at the plant that can give the greatest radius of impact outside its facilities.

In addition, protective measures to be implemented in the event of an emergency are the same for **ammonia (NH₃)** (see section «**What to do in case of an alert?**»).

Do you have any questions? Contact:

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For more information about the Company or information presented in this leaflet, please visit <https://rayonieram.com/installations/temiscaming/?lang=en>