2017 Sustainable Development Report

Fer et Titane
Sorel-Tracy Metallurgical Complex
Havre-Saint-Pierre Mining Facilities

We produce materials essential to human progress
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MESSAGE FROM MANAGEMENT

This sustainable development report is an opportunity for us to provide you with a transparent description of Rio Tinto Fer et Titane’s main achievements and challenges in 2017.

We have combined information about both RTFT sites into a single report, with a section devoted to the Sorel-Tracey Metallurgical Complex and another to the Havre-Saint-Pierre Mining Facilities.

At RTFT, our sustainable development approach is aimed primarily at making responsible, sustainable choices at all levels of the organisation.

Community Involvement

We believe that dialogue with communities is essential for maintaining our relationships with local players. Specific, concrete efforts are devoted to preserving these relations and, above all, listening to our stakeholders.

Operation Red Nose was a success in Sorel-Tracy thanks largely to the involvement of RTFT personnel. Twelve teams were created to drive people home safely during the Holiday Season. Thanks to our employees’ involvement, we were able to donate $7,250 to regional organisations.

We encourage you to read our 2017 sustainable development report and share the information about our organisation’s leading achievements and challenges.

Safety

In the wake of a gas system explosion in March, we reviewed our operational safety deployment strategy throughout the Sorel-Tracey Metallurgical Complex. We consulted companies similar to ours and expanded our deployment team to improve our approach. Involvement of employees at all levels is also essential. Implementation of Process Safety Management (PSM) at all plants is ongoing.

At our Havre-Saint-Pierre site, we continued to implement Critical Risk Management (CRM). The team deployed a project aimed at accessing real-time safety information via interactive electronic dashboards installed at strategic locations.

RTFT Management
You roll out of bed, have breakfast surrounded by white walls, and climb in your car or take public transit to get from point A to point B. You put on sunscreen and brush your teeth. These are just a few good reasons why RTFT mines and processes iron and titanium.

One of the main uses of titanium is to whiten a wide array of products, from paint and textiles to paper. This whiteness is due to the fact that titanium oxide ($\text{TiO}_2$) absorbs ultraviolet rays and reflects 96 per cent of light. It is why $\text{TiO}_2$ is one of the ingredients in sunscreens. Titanium-containing ilmenite is also used to produce molten metal, steel billets, pig iron and cutting-edge metal powder. Most of our metal powder production is destined for the automotive industry, which uses it to manufacture complex mechanical parts. RTFT metal powder is used to make seats, valve guides and precision parts, such as synchronisation hubs and assorted mechanical devices. Among other things, this is what makes cars brake and wind turbines turn.

One of the main uses of titanium is to whiten a wide array of products, from paint and textiles to paper. Titanium is also used extensively to manufacture equipment with parts that have to be highly resistant, light and reliable, such as bicycles and golf clubs.
BUSINESS PERFORMANCE

Return on net assets (RONA) is the main indicator of a company’s profitability. In 2017, our RONA was 6.9 per cent, which means that there was a substantial increase in our profit compared with 2016. Despite this improvement, our performance has yet to meet the Rio Tinto Group target of 20 per cent.

Our business performance in 2017 was negatively affected by several events, one of them major, namely the explosion of a CO gas system. This incident reduced our output in a context where we could have sold 100 per cent of our production. Fortunately, this major event did not cause any serious injuries. It nevertheless cast a shadow over the year.

Management is convinced that RTFT’s medium- and long-term performance can be improved by risk management. The CO gas event and subsequent repairs cost us several million dollars in lost production.

Demand and sales prices were on an upward trend in 2017, and our average annual production capacity was up from 55 per cent in 2016 to 67 per cent in 2017. However, market conditions remained volatile in a globally uncertain economic and political context.

Cost control is an ongoing challenge and one of the keys to remaining internationally competitive. Markets are favourable, and all of our production can be sold, but economic cycles are becoming shorter and shorter. We have to position ourselves to make it through more difficult periods, and sound cost management is how we can do this.

The main issue is thus increasing production while rising to the related challenges in terms of safety and availability of equipment and human resources. Safety remains the organisation’s number-one priority.

In 2017, our RONA was 6.9 per cent, which means that there was a substantial increase in our profit compared with 2016.
» SOREL-TRACY METALLURGICAL COMPLEX
HUMAN RESOURCES

Pooling talent, building teams, identifying needs, making sure that everyone’s skills are up to date and working to ensure the well-being of one and all: these are some of the daily responsibilities of RTFT’s Human Resources team. RTFT is committed to providing a safe, professional work environment for its personnel.

Our 2016 people survey identified employees’ level of satisfaction with their jobs. We used the results to take stock of the situation and find out how we could improve working conditions and the work atmosphere. Surveys are a good opportunity for employees to make recommendations, and that is why participation is so important. Among other things, the most recent survey spurred us to improve employees’ feeling of belonging by deploying new projects.
2017 Highlights: Organisational Health and Interdependent Leadership

Towards the end of 2016, RTFT deployed a series of initiatives aimed at developing individual engagement within the company. The projects focused on positioning the company vis-à-vis its employees and encouraging their active commitment. Facilitating the distribution of information and engaging everyone in the corporate structure are essential for boosting team dynamics and increasing productivity in a positive way.

Organisational Health

It goes without saying that the key to a healthy organisation is healthy employees. Well-being is a major concern for RTFT, given the organisational changes over the past few years, some of which have had an impact on personnel. In 2017, the time was ripe to implement measures aimed at creating a healthy work atmosphere and appropriate leadership. Pilot projects were developed to facilitate people’s work, especially by creating tools designed to simplify planning.

Interdependent Leadership

Traditionally, an organisational pyramid is top down. This not only means that senior management is almost exclusively responsible: it also means a risk of employees being less interested and feeling excluded.

As RTFT’s operations are wide ranging and split between five sectors, we wanted to encourage two-way dialogue between managers. Our project was aimed at catalysing teamwork by implementing a horizontal hierarchy. Two key initiatives were deployed in 2017 with a view to creating tangible, mutual trust.

• A decision-making committee made up of managers and superintendents, known by the acronym “CDCS,” was created. It focuses on mutual validation and consultation about the deployment of projects with a direct impact on employees in every sector. The members of the CDCS meet to discuss issues and develop a culture of trust and feedback. The goal is to ensure uniformity across all RTFT sectors and efficient communication.

• A project team consisting of managers, superintendents, supervisors, representatives of various functions and unionised employees was set up. Its main role is to define the management framework to create interdependence as well as standardise and deploy strategic initiatives across RTFT. To ensure this interdependence, the committee has joined with sectors, plants and stakeholders from various levels of the organisation to agree on the implementation of a change management plan. A toolbox was developed, featuring essential, tangible steps for ensuring cohesion and coherence and making sure that the relevant people are consulted and involved.

By identifying problems at each organisational level and finding solutions without delay, we try to meet employees’ expectations.
Recruitment and Hiring Challenges
2017 was a pivotal year in a number of ways.

First, the recruitment interface, which had been based abroad for several years, was recentralised in Quebec.

New, simplified recruitment procedures were implemented to enable RTFT and the other Rio Tinto business units to improve their targeting of potential candidates and respond appropriately at each step in the process. By reorganising the way it contacts candidates, the Recruitment team was able to tackle hiring issues with greater precision. One of the changes involved meeting future graduates at their CEGEP during a career day and hiring them a few months later, as soon as they received their diploma.

While hiring qualified personnel was one of the challenges we tackled in 2017, we also focused on retaining talent. By offering a safe, respectful environment, we focus our energy on making employees feel welcome within the company and the overall region. In 2017, partnership projects were launched with active local players to encourage employees to move to the region and put down roots. We also realised the need to hire mechanical maintenance and production supervisors. Under the heading of qualified labour, electrical technicians, stationary engineers and chemical process operators will soon be joining the RTFT team.

TRAINING

Highlight:
Technological Shift with e-Learning

The business world is constantly changing. RTFT understands this, and that is why we are optimising our training, above and beyond the requirements set by the Quebec government in the Act to promote workforce skills development and recognition.

We also launched an analysis of the gas operators training programme. Determined to offer increasingly high-performance work methods and optimise employees’ time, we decided to emphasise a new approach for updating skills.

We opted for e-learning in 2017 to propose a new, more efficient learning approach with a focus on the future. With e-learning, finding a classroom and assembling the required number of participants are no longer logistical constraints. The new training approach is flexible and much more appealing. Combining audio, video and interaction, it helps employees retain information better than “traditional” training. We will continue to deploy this technology in 2018 and expand it to other types of training.

<table>
<thead>
<tr>
<th>Number of employees trained</th>
<th>1,307</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hours of training</td>
<td>38,838</td>
</tr>
</tbody>
</table>
**Employee Weeks**

To reach more employees and encourage dialogue, RTFT launched a new initiative in October 2017 called “Employee Weeks.” Five booths were set up side by side and manned by members of our teams, who informed visitors about the organisation’s five priorities:

- Safety
- People
- Partnership
- Growth
- Cash

Members of RTFT management were also there to explain Rio Tinto’s mission and describe everyday end-uses of RTFT products.
OCCUPATIONAL SAFETY

Deployment of the Critical Risk Management (CRM) programme continued in 2017. Aimed at eliminating fatalities, CRM requires greater presence of managers on the shop floor. The goal is to eliminate fatalities, while continuing to manage the risks of all injuries.

Managers and employees must remember the following points:

- Complete a critical control checklist (CCC) immediately prior to performing a task and ensure that all controls are in place
- Assign tasks and identify critical risks with the team
- Acknowledge feedback on activities (work cessations and requests for assistance)

In 2017, internal experts conducted an audit aimed at identifying the level of maturity of CRM deployment throughout the site. Among other positive aspects, the audit showed that employees were open and committed to CRM. Implementation of this type of programme requires thoroughness and involvement from everyone. RTFT therefore set up a governance committee to maintain progress, adjust parameters and improve the process on an ongoing basis.

Our recordable injury frequency rate in 2017 was essentially unchanged. Efforts to manage fatality risks, all-injury frequency and process safety remain essential for meeting our goal of zero harm by choice.
HEALTH AND INDUSTRIAL HYGIENE

In 2017, the Health and Industrial Hygiene teams maintained basic activities to support the operations teams.

The following initiatives were deployed:

- Pre-hiring health examinations
- Regular examinations of employees in high-risk jobs
- Hearing tests (hearing loss)
- Personal protective equipment tests and adjustments (hearing and respiratory protection)
- Industrial exposure monitoring programme (sampling)

The implementation team, made up of managers from all of our plants, ensures that critical controls are identified and defined, and that critical control checklists are completed. The team’s mission is to facilitate implementation of PSM activities and increase employees’ knowledge and ownership of risks and critical controls.

Together with the members of the mental health committee, RTFT’s medical director prepared a back-to-work guide for managers and employees. The guide answers questions and clarifies the roles of all involved, to facilitate and structure employees’ return to work.

Operational Safety

We ramped up our efforts to implement Process Safety Management (PSM) in 2017.

The purpose of PSM is to improve management of risks generated by our operations and processes so we can protect our people, the community and the environment.

Following the explosion of our gas system, we adjusted our strategy, calling on external experts and resource people to help us. We reworked deployment planning, prioritising hazards by type (instead of the former prioritisation by plant). The new approach places great emphasis on managing critical controls, i.e., equipment and instruments that can prevent a process disaster.

Health Performance Indicators

The graph shows the Occupational Illness Frequency Rate from 2015 to 2017. The rate decreased from 0.8 in 2015 to 0.5 in 2017.
ENVIRONMENT AND RESOURCES

RTFT does all it can to be a responsible corporate citizen. Year after year, we continue to improve our processes, so we can limit our environmental footprint.

WATER MANAGEMENT

Water is crucial to RTFT’s operations. Most of our water is pumped from the St. Lawrence River. In 2017, we used 46.7 million cubic metres of H₂O — almost the same volume as in 2016 and proportionate to production. As an environmentally responsible organisation, RTFT uses water only for processes and cooling operations, which has little impact on the City of Sorel-Tracy’s volume of potable water. Our water treatment plant takes care of the main pollutants. Once water has been used, it is recycled and treated for recirculation or to be returned to the St. Lawrence. The average annual volume of suspended solids was considerably lower in 2017 than in 2016. Efforts in this area in recent years have thus been successful.

![Graph of Water Consumption at the Sorel-Tracy Metallurgical Complex](image)

![Graph of Annual Average of Suspended Solids in Water Treatment Plant Effluents](image)
AIR QUALITY

Highlights:
Efficiency of SO₂ Recovery Plant
Air quality depends on numerous factors, ranging from simple wood fires, which emit particulate matter, to transportation and agriculture.

Although there are many sources of particulate matter other than its own operations, as a responsible organisation, RTFT measures annual changes in air quality.

One of the company’s two air quality sampling stations in Saint-Joseph-de-Sorel was dismantled due to the end of an agreement with the resident of the property where the station was located.

In 2017, we observed and analysed 13 exceedances:

- Four of the exceedances occurred in winter, during cold weather with light winds. Under these conditions, wood heating is a known source of particulate matter.
- One exceedance occurred at a time when air quality was poor across southern Quebec.
- Four exceedances occurred during the shutdown of part of the gas system.
- The remaining four exceedances were observed on days with strong, particulate-bearing winds.

The CO gas system was damaged by an explosion on 30 March, leading to partial venting for three months. During this period, RTFT carried out continuous air quality monitoring in the neighbouring communities, allowing the company to mitigate the impact on air quality.

The SO₂ Recovery Plant has performed well since it came on line in July 2015. SO₂ emissions have been reduced by over 60 per cent. The rise in SO₂ emissions in 2017 may be explained by the fact that we were operating at 50 per cent of capacity the previous year.

<table>
<thead>
<tr>
<th>Observed exceedances*</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient air quality (particle concentration)</td>
<td>5</td>
<td>6</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observed exceedances*</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphur dioxide (SO₂) emissions (tonnes/year)</td>
<td>4395</td>
<td>1605</td>
<td>2056</td>
</tr>
</tbody>
</table>

* Number of observed exceedances of the air quality criteria set forth in the Clean Air Regulation.
Highlight:
Positive Impact of Acoustic Wall
RTFT cares about its environmental footprint. As of the early 2000s, it began considering a project to mitigate potential noise pollution that could affect residents of the neighbouring town of Saint-Joseph-de-Sorel. It subsequently built a seven-metre-high, 150-metre-long acoustic wall to serve as a buffer and reduce the noise impact of its operations.

The challenge was to build a wall close to the RTFT facilities, while keeping the footprint of the wall to a minimum for aesthetic reasons. By using a variety of materials, including topsoil and granular backfill, RTFT was able to meet the specifications and leave room for subsequent landscaping on the residential side.

Measured behind the homes on Moreau Street in Saint-Joseph-de-Sorel, noise levels have shown the wall’s beneficial effect. For the first time since the creation of the RTFT facilities, noise levels are down significantly, below the historical level of 50 dB.

More About Noise
Les valeurs présentées dans ce rapport proviennent des simulations effectuées sur ordinateur (modélisation) based on the noise contribution of each fixed noise source at the RTFT site. Using this method, we can assess a scenario in which all of the fixed noise sources are operating simultaneously and the wind is carrying the noise to each of the receptor points. It should be noted that weather conditions, including wind direction, influence sound propagation. The method also allows us to compare similar parameters, with a view to assessing possible changes in noise contributions from one year to the next. The Ministère du Développement durable, de l’Environnement et de la Lutte contre les changements climatiques (MDDELCC) recommends using modelling to assess noise contributions for noise impact studies conducted as part of the certificate of authorisation application process.

The following table shows the modelling results. There was no change in noise levels in 2017 compared with the previous two years.

<table>
<thead>
<tr>
<th>Receptor point</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behind houses on Moreau Street in Saint-Joseph-de-Sorel</td>
<td>61</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Corner of Du Souvenir Street and Bonin Street in Sorel-Tracy</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>298 Rang Saint-Joseph in Saint-Ignace-de-Loyola</td>
<td>51</td>
<td>51</td>
<td>51</td>
</tr>
</tbody>
</table>
RESIDUAL MATERIALS MANAGEMENT

All industrial operations generate by-products and residual materials. RTFT wants to reduce its residual materials to a minimum. With this in mind, it reuses the greater part of these materials during other operations at its site or has external firms recycle them for new uses.

In 2017, major refurbishing was done on the gas system, reduction furnaces and slag cooling areas, resulting in an increase in the volume of residual materials (iron, concrete), most of which were recycled for other purposes.

There was an increase in the volume of hazardous recyclable materials due to the changing of transformer oil in 2017. The transformers are used to power the reduction furnaces. Regular oil changes are part of the equipment maintenance programme.

The SO₂ Recovery Plant has had an undeniably positive impact. It recovers gases emitted by equipment and processes them into solid residues certified by the Bureau de normalisation du Québec (BNQ) for reuse by farmers as soil amendment.

ENERGY AND GREENHOUSE GASES

Gases present naturally in the atmosphere contribute to the creation of a greenhouse effect by reflecting heat back to the surface of the planet. Certain human activities produce additional gases and also contribute to an increase in the greenhouse effect.

Our energy consumption and greenhouse gas emissions are naturally proportionate to our production rate, particularly reduction furnace operations. The furnaces produce CO gas that, once recovered, is flared and becomes CO₂. In March 2017, an incident limited RTFT’s use of CO for three months, and the replacement of CO by natural gas at certain plants contributed to an increase in greenhouse gas emissions.

OTHER ENVIRONMENTAL INDICATORS

The Sorel-Tracy Metallurgical Complex covers 148 hectares. The number of environmental incidents was stable last year thanks to sustained efforts by the project and production teams. In 2017, reported environmental incidents involved one overflow, 18 leaks (petroleum products and chemicals) and five atmospheric incidents (dust and halocarbons).

Following each incident, RTFT carried out a painstaking investigation to avoid recurrences and improve its environmental performance.
COMMUNITIES

RTFT is socially committed and engaged in its host community. This commitment takes the shape of a contributions programme based on four strategic pillars:

- Social and community development
- Economic development
- Environment
- Education

Beyond financial support, we are proud of the positive impact of our employees’ involvement in initiatives like Operation Red Nose and the Grand défi Pierre Lavoie.

CONTRIBUTIONS PROGRAMME

Direct Financial Contributions to Communities in 2017

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>4%</td>
</tr>
<tr>
<td>Education</td>
<td>12%</td>
</tr>
<tr>
<td>Environment</td>
<td>9%</td>
</tr>
<tr>
<td>Health</td>
<td>18%</td>
</tr>
<tr>
<td>Recreation</td>
<td>34%</td>
</tr>
<tr>
<td>Business development</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>11%</td>
</tr>
</tbody>
</table>
INvolvement

The future depends on all stakeholders, and RTFT fosters a feeling of belonging and pride in its host community in a variety of ways.

For several years, employees have made a difference by taking part in the Grand défi Pierre Lavoie. Their goal is to encourage young people in the region to adopt healthy lifestyles. In 2017, $25,000 raised by the 1,000-kilometre cycling challenge was donated to two elementary schools, Sainte-Anne-les-Îles and Monseigneur-Prince. Most of the money was used to buy educational material and refurbish facilities. Funds were also devoted to activities aimed at convincing youngsters of the benefits of physical exercise.

RTFT also actively supports the 2017 Sorel-Tracy edition of the Canadian Cancer Society’s Relay for Life.

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Operation Red Nose

Operation Red Nose is more than a ride-home service. People’s health and safety is a core value at RTFT. That’s what motivates us every year to invest in this road safety initiative.

In 2017, 15 RTFT teams were created for the Operation Red Nose adventure. Thanks to their involvement, employees donated $7,250 to non-profit organisations in the region.

Colonie des Grèves Walkway

RTFT’s partnership with Colonie des Grèves is a natural alliance. Over the past few years, it has allowed RTFT to provide financial support to the solidarity cooperative that runs Parc régional des Grèves, a model of sustainable development.

In October 2017, the company contributed financially to the creation of a 1.4-kilometre raised walkway linking the Sorel-Tracy and Contrecoeur sectors, allowing hikers to discover wetlands without trampling protected vegetation.

Sorel-Tracy celebrated its 375th birthday in 2017, and we contributed to the milestone by sponsoring the “Grand 375” festivities.

In 2017, $4,000 was raised for cancer research and prevention. We would like to recognise UGS Plant employee Pierre Dupuy for his personal involvement.

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High Profile for RTFT at Georges-Codling Hall
Culture is undeniably associated with progress and education. A long-term partner of Azimut Diffusion, RTFT made the second-biggest donation towards the creation of Georges-Codling Hall, and the lobby of the new professional entertainment venue now bears the company’s name. With its industrial look, the majestic lobby embodies our company’s spirit. More than a way to get from point A to point B, it is what visitors see first from outside the performance hall. Featuring the ticket desk and, soon, a bar, it is used for book launches, exhibitions and conferences.

ECONOMIC IMPACT
In 2017, expenditures at the Sorel-Tracy Metallurgical Complex totalled $338 million, with $100 million of this amount spent on goods and services in the Sorel-Tracy area. Under its Community Contribution Policy, RTFT has always favoured local procurement at equal cost. The real economic impact is no doubt even greater, as the data are based on the geographical locations of our suppliers’ administrative centres.

Breakdown of RTFT Expenditures at the Sorel-Tracy Metallurgical Complex in 2017

- Purchases in Canada (outside Quebec): $143M
- Purchases in Quebec (excluding local): $94M
- Local purchases: $100M
- International purchases: $157M

Total purchases in 2017: $494M
HAVRE-SAINT-PIERRE MINING FACILITIES
The Company

Health and Safety
In terms of health and safety performance, 2017 was a more difficult year than 2016. We nevertheless ended the year with an all injury frequency rate (AIFR) of 0.45, with a single lost time injury. Shorter work weeks and the negotiation of a new collective agreement with the union had an impact on our Critical Risk Management (CRM) performance. Our operating model requires us to be much more disciplined and strict when it comes to maintaining our safety standards.

Environment
There was a substantial improvement in our water management performance in 2017. The early winter prevented us from finalising automation of our nickel management facility, but thanks to sustained efforts by the Environment team we achieved our best-ever results. In 2018, with automation, we will have real-time monitoring, allowing us to meet our target regardless of whether it rains or snows.

Following our application for a certification of authorisation to expand the Puyjalon South waste rock pile, we launched an environmental issue table with the Ekuanitshit community. The issue table will become a reference in the environmental authorisation process involving First Nations.

Efficiency and Profitability
We continued to deploy our strategy for improving our costs and performance in 2017. Although much remains to be done, there has already been a significant improvement in our operational performance.

Our return to production after the 2017 summer downtime was one of the best ever, and we are continuing to show our determination to improve costs.

Vision 2018
Our vision of the future is clear. We need to meet our health and safety objectives by involving all of our employees. After three difficult years and despite the limited number of weeks of production, we have to re-energise our people’s engagement. We are also continuing our research aimed at developing new products that can improve our financial performance, while progressing in all of our operations. Finally, we have to be thorough and disciplined when making decisions, by systematically placing top priority on safety, while fostering harmonious, profitable relations with all stakeholders, both internal and external. These efforts will ensure our profitability and the mine’s ongoing operations.
OUR PEOPLE

We place special importance on our employees and are committed to developing open dialogue based on mutual trust.

HUMAN RESOURCES AND TRAINING

Highlights:

Extension of Collective Agreement to August 2022 and New Addenda

Anticipating the expiry of the collective agreement with its employees in 2018, RTFT Havre-Saint-Pierre offered to make the necessary changes to the existing agreement and extend it until 2022. Early renewal of the agreement was a winning approach for both parties and ensured the company’s uninterrupted operations. The agreement was signed by a joint committee made up of union and employer representatives.

The addenda to the collective agreement focus on:

- Performance indicators aimed at ensuring a minimum number of weeks of operations, continuing the following years
- New pension plans for new employees

Recruitment and Hiring Challenges

In addition to the recruitment challenges faced by RTFT throughout 2017, the Havre-Saint-Pierre site had to deal with challenges specific to its field of activities and geographical location. RTFT Havre-Saint-Pierre needs geological engineers who have highly specialised training and are familiar with open-pit mining. Maintenance superintendents have to be familiar with complex equipment that is different from that used in plants. To recruit people with the specific skills we need in a competitive labour market, we offer attractive employment conditions.

While some new employees already live in the area or within a reasonable distance from our site, others are newcomers to the region. Helping them settle in the Havre-Saint-Pierre area is another challenge that we are prepared to tackle. We are committed to the well-being of our employees and their families.
Highlight: Deployment of a Continuous Improvement Approach to Enhance Respect for All Employees

Under the heading of training, 2017 was a busy year. Updated training in a variety of areas helped consolidate RTFT Havre-Saint-Pierre’s human resources positioning.

RTFT Havre-Saint-Pierre is at the cutting edge when it comes to realising the importance of the human factor at work. In 2017, the site launched a training initiative focusing on respect. To raise employees’ awareness, it hired an external consultant, who developed a series of recommendations designed to improve people’s tolerance of others and self-esteem at both the occupational and personal levels. The initiative was a great success, with much higher than hoped-for participation. Given its popularity, it will be repeated in 2018, with additional modules so that all employees can benefit from this expertise.

Practical training was provided for mining equipment operators. Up until 2017, this recertification training was given annually, given the class 3 licence requirement and the need for training for each new technical task. Further to risk analyses conducted last year, the training will now be given every two years. In another area, RTFT Havre-Saint-Pierre renewed its training on the Canadian Rail Operating Rules in compliance with government requirements. The CROR training is given every three years.

New interactive learning launched in 2017 will be repeated in 2018.
HEALTH AND INDUSTRIAL HYGIENE

Highlights:
• Medical Examination Targets Met
• Installation of New Filtration Equipment

Each year, to help protect and, if applicable, improve occupational health, a team conducts employee medical consultations.

• The response rate was excellent in 2017: targets were met by 93.5 per cent. A total of 101 people out of 108 planned were examined. Cooperation by all employees was exemplary.
• A fraction of employees (39) exposed to noisy situations underwent hearing tests.
• Protective equipment such as earplugs were checked, and appropriate earmuffs were deployed.
• The team met its industrial hygiene target of taking 154 samples of contaminants (dust, welding fumes and/or noise).
• Asbestos sampling at the crusher electrical substation showed that concentrations were below the recommended limit under the Regulation respecting occupational health and safety.

Special attention was paid to workstation ergonomics, including office employees’ workstations. Chair and desk comfort, computer monitor height and distance, posture and other factors were assessed.

RTFT invested in new, more efficient dust filtration equipment, along with equally efficient masks, to provide better respiratory protection.
OCCUPATIONAL SAFETY

Highlight: Creation of Tio Board
RTFT Havre-Saint-Pierre places prime importance on the safety of the people who work on its site. In 2017, the Critical Risk Management (CRM) programme was reinforced, with active participation by both managers and employees. Identification and posting of risks, checklists and controls are among the daily initiatives that make CRM an automatic reflex. Implementation of phase 3 of CRM was bolstered by the creation of the “Tio Board,” an electronic visual dashboard enabling real-time safety updates and, above all, appropriate responses. Using interactive touchscreens located in strategic places, supervisors post or consult information about operations.

SAFETY PERFORMANCE

In July 2017, a lost time incident had an impact on RTFT’s all injury frequency rate (AIFR). Since then, there has been a significant reduction in our AIFR.

Safety Performance Indicators

Recordable Injury Frequency Rate
(number of lost time, work restriction and medical follow-up incidents x 200,000 / number of hours worked)
ENVIRONMENT AND RESOURCES

At Lac Tio, near Havre-Saint-Pierre, our open-pit mine sits on one of the world’s largest massive ilmenite deposits. Mining can affect soil, water and air, as well as wildlife and plants. These effects are monitored by government bodies such as Environment and Climate Change Canada (ECCC) and the Ministère du Développement durable, de l’Environnement et de la Lutte contre les changements climatiques (MDDELCC). Rio Tinto Havre-Saint-Pierre is committed to meeting and exceeding requirements and anticipating consequences.

WATER MANAGEMENT

Aware of the potential risks of using and recycling water and returning it to nature, Rio Tinto Havre-Saint-Pierre has made water management a priority. In 2017, we were able to keep nickel content below not only the required standard but also our own target for mine effluents. We are proud to have reduced our environmental impact by keeping our main effluent to 0.21 mg/l (annual average), compared with the required standard of 0.50 mg/l (monthly average).

In August and September 2017, the MDDELCC and the ECCC conducted two inspections to validate our mine effluent sampling methods.

At the terminal, compliance of the water treatment unit for our interceptor trench was validated. Other than a few minor improvements, the system was found to be working well, more than 10 years after it was installed.

AIR QUALITY

Highlight: Results Better than Required Standards

The main efforts deployed in 2016 included the installation of a station for measuring air quality at the terminal.Located close to our ore storage area, the station continued in 2017 to record air quality on an ongoing basis, measuring metals, particles and dust. The 2017 results were similar to those for the previous year, with values below the applicable standards under the Clean Air Regulation. Our goal is to continue along the same path, ensuring air quality through technological improvements that gradually reduce the impact on citizens.
RESIDUAL MATERIALS MANAGEMENT

In 2017, the Ministère du Développement durable, de l’Environnement et de la Lutte contre les changements climatiques (MDDELCC) notified us that we needed to clean up our storage site, which contained a wide variety of non-toxic waste, from metal to wood pallets and plastic pipes. In the fall of 2017, RTFT Havre-Saint-Pierre recovered a large volume of scrap metal and committed to reusing and recycling everything possible. Clean-up of the temporary depot for the first time in years explains the significant increase in residual materials compared with 2016. Subsequently, a project was launched to improve management and sorting of residual materials at the mine and terminal. The project should be completed in 2018.

There was no increase in the production of hazardous residual materials in 2017. The volume was similar to that in 2016, seeing that the number of weeks of operations was the same for both years.

<table>
<thead>
<tr>
<th>Types of materials</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual materials (from the cafeteria, building materials)</td>
<td>602 t</td>
<td>785 t</td>
<td>2,020 t</td>
</tr>
<tr>
<td>Hazardous materials</td>
<td>443 t</td>
<td>155 t</td>
<td>175 t</td>
</tr>
<tr>
<td>Total Tonnes generated</td>
<td>1,045 t</td>
<td>940 t</td>
<td>2,195 t</td>
</tr>
<tr>
<td>Total Tonnes recycled</td>
<td>1.8%</td>
<td>8.1%</td>
<td>60%</td>
</tr>
</tbody>
</table>

ENERGY AND GREENHOUSE GASES

The majority of greenhouse gas emissions at RTFT’s Havre-Saint-Pierre facilities are generated by mobile equipment (drills, locomotives, mine trucks, loaders, shovels, light vehicles, etc.). Emissions are also generated by fixed equipment (boilers and generators). In 2017, all sites (railway, mine, railway terminal and port) and CO₂ emissions were considered.

Reduced truck use and rationalised train use are among the ongoing efforts by RTFT Havre-Saint-Pierre to improve its energy efficiency and reduce greenhouse gas emissions.
WASTE ROCK MANAGEMENT

Highlight: Application for Authorisation for Puyjalon South
In April 2017, anticipating a future shortage of space to pile waste rock, RTFT Havre-Saint-Pierre filed an application for a certification of authorisation with the Ministère du Développement durable, de l’Environnement et de la Lutte contre les changements climatiques (MDDELCC) and a land rental application with the Ministère de l’Énergie et des Ressources naturelles (MERN). The applications were aimed at extending the Puyjalon South accumulation area for low-content ore. If the applications are granted, the project will be sufficient to store waste rock and low-content ore until the current deposit is depleted. To ensure that implementation of the project is respectful of our stakeholders, we deployed an information and consultation process throughout 2017.

Highlight: Rehabilitation of Petit-Pas Waste Rock Pile
Rehabilitation of the Petit-Pas waste rock pile got under way in 2017, according to the plan submitted in December 2016 to Environment and Climate Change Canada (ECCC). The goal for 2017 was to remove 400,000 tonnes of waste rock and low-content ore from the site.
We outperformed our target, removing 550,000 tonnes. We were also able to extract valuable ore from almost 20 per cent of this volume. Thanks to our sustainable development approach, we reused a resource and implemented a permanent solution for water quality in Lac Petit-Pas. The project should continue until 2029.

ENVIRONMENTAL INCIDENTS

Highlight: Recovery Work
Eleven environmental incidents were reported in 2017. One of them was due to a momentary exceedance of suspended solids at one of the mine effluents. Nine of them had to do with minor hydrocarbon spills (diesel fuel, oil). During the summer, RTFT began recovering soil contaminated with diesel fuel near the oil facilities at the terminal. All of the contaminated soil that was recovered was sent to an authorised treatment site. The MDDELCC was kept up to date during the work, which will continue in 2018.

BIODIVERSITY

RTFT Havre-Saint-Pierre carries out regulatory monitoring on a regular, voluntary basis to reduce its environmental impact and maintain biodiversity around its facilities. In 2017, we started monitoring beaver populations near the new Tio Mine access road, between the mine and the Hydro-Québec road. We also completed environmental assessments during the year, focusing on wildlife, plants and wetlands, related to the proposed extension of the Puyjalon South low-content ore accumulation area, and submitted the assessments to the MDDELCC. With all new projects, we are careful to validate potential impact on the surrounding environment. In compliance with the federal government’s Metal and Diamond Mining Effluent Regulations, we submitted our Cycle 5 report on Environmental Effects Monitoring (EEM) studies to ECCC. Over the past few years, this monitoring has involved a number of initiatives for sampling water in lakes around the Tio Mine, along with analyses of fish and invertebrates in the receiving environment and reference areas.
COMMUNITIES

Dialogue with communities is the foundation of our relationship with local residents and players. Our operations are intimately linked with the region, and support from the local population is essential.

EKUANITSHIT

RTFT respects existing communities and is committed to working with the people who live in them and use land near its facilities.

An information and consultation approach was proposed to the community as part of the new operating scenario for the Tio Mine, located north of Havre-Saint-Pierre. The scenario calls for an extension of the current Puyjalon South low-content ore accumulation area to enable ongoing mine operations.

The approach was aimed at explaining the operating scenario and answering questions, as well as hearing stakeholders’ concerns, comments and suggestions. A series of meetings were held in 2017 between RTFT and the Ekuanitshit Innu community, within the framework of an environmental issue table. Consultation activities were also held with the Minganie regional county municipality, the local municipality, RTFT employees, Havre-Saint-Pierre residents and holders of vacation leases near the mine.

During these meetings, RTFT provided information about all of the sector studies prepared on the operating scenario, focusing on themes such as fish and wildlife, water management, air quality, ambient noise, the landscape and other issues. The experts who prepared these studies were invited to present their findings in person. Detailed minutes were drafted on all of the meetings and compiled in a report on the approach.

The approach will continue in 2018. RTFT plans to continue to be transparent and listen to stakeholders as part of its operations.
CONTRIBUTIONS PROGRAMME

As a responsible partner, RTFT Havre-Saint-Pierre is committed to giving back to the community. We place great importance on our region’s vitality and, above all, on the people who live here. Our contributions in areas as wide ranging as health, culture and education are proof of our interest in our host community.

As a dynamic local player, we have included entrepreneurship and economic diversification in our approach for boosting the region’s impact. Through new job creation, we encourage new talent to move to the Minganie region and contribute to its development.

INvolvement

Highlights:
• Economic Diversification
• Consultations with Communities
• Simplified Complaint Process

In 2017, a number of meetings were held with people involved in projects supported by RTFT Havre-Saint-Pierre. This was confirmed objectively by an external audit conducted in 2017 under an initiative known as “Vers le développement minier durable” (VDMD). The audit showed that our company is making excellent progress, year after year, in fulfilling its environmental and social commitments.

Although RTFT is not the largest employer in the region, it plays a key role in the economy. That explains our financial investment and our leaders’ involvement in a fund dedicated to entrepreneurial projects in the Minganie region. Representatives from RTFT Havre-Saint-Pierre thus sit on the orientation and development advisory committee mandated by the regional county municipality council. This involvement will continue throughout 2018.

Community engagement is part of our corporate culture. Ekuanitshit authorities and RTFT Havre-Saint-Pierre management met on a number of occasions last year to discuss issues such as human resources and the environment issue table. Our desire to reinforce our relations with the Ekuanitshit community was also illustrated by high-level negotiations regarding the Impact Benefit Agreement (IBA).

A new complaint system was implemented in 2017. Accessible 24/7, it is dedicated to the Havre-Saint-Pierre site. Following each telephone call, the procedure is the same: we contact the caller to confirm his or her identity, acknowledge the complaint and propose solutions. Follow-up involves analysing the event and implementing preventive measures to prevent it from happening again.

Direct Financial Contributions to Communities in 2017

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and safety</td>
<td>23%</td>
</tr>
<tr>
<td>Environment</td>
<td>9%</td>
</tr>
<tr>
<td>Education</td>
<td>16%</td>
</tr>
<tr>
<td>Recreation</td>
<td>21%</td>
</tr>
<tr>
<td>Culture</td>
<td>18%</td>
</tr>
<tr>
<td>Business development</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>
ECONOMIC DIVERSIFICATION

In the summer of 2016, RTFT Havre-Saint-Pierre joined with a group of elected representatives and economic stakeholders from the Minganie region to reflect on regional economic development.

This first step in this important process was to prepare a profile of the economic context and business climate. The profile highlighted the precarity and vulnerability of the region’s economy, explained by factors such as its relatively undiversified industrial structure, the upcoming end of major investment projects and the dependence of a number of jobs at RTFT.

In 2017, RTFT continued its efforts by funding an activity conducted by an independent firm of external experts, focusing on all economic players in Havre-Saint-Pierre and Ekuanitshit. The subsequent report was very clear: actions had to be taken to diversify the regional economy and explore certain opportunities, including the abundance of and access to natural resources, quality of life, close relationships with local players, tourism, and fishing, agriculture and aquaculture.

Creation of a Fund

A broader consultation was then carried out, involving the main regional players, to discuss the report’s conclusions and explore potential solutions. This consultation sparked the creation of a fund that would be exclusively dedicated to supporting initiatives and entrepreneurial projects aimed at diversifying the Minganie economy.

Numerous meetings and discussions between the parties involved and potential partners are planned for 2018. The goal is to clarify this leverage and assess ways to use it.

Without a doubt, this promising approach is the Minganie region’s biggest-ever economic development initiative. And RTFT is proud to play a leading role in the initiative through the involvement of its senior management and the company’s financial contribution.

ECONOMIC IMPACT

In 2017, expenditures at the Havre-Saint-Pierre Mining Facilities totalled $35 million. An estimated $10 million was spent in the Havre-Saint-Pierre area, i.e., almost a third of the total amount spent in Quebec. The reduction in expenditures compared with the previous year may be explained by the shorter operating season.

Breakdown of RTFT Expenditures at the Havre-Saint-Pierre Mining Facilities in 2017

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total purchases in 2017</td>
<td>$34,64M</td>
</tr>
<tr>
<td>Purchases in Canada (outside Quebec)</td>
<td>$17M</td>
</tr>
<tr>
<td>Purchases in Quebec (excluding local)</td>
<td>$9M</td>
</tr>
<tr>
<td>Local purchases</td>
<td>$8M</td>
</tr>
<tr>
<td>International purchases</td>
<td>$164,000M</td>
</tr>
</tbody>
</table>

All mines around the world will some day close, when their resources are depleted. That is why Rio Tinto encourages sustainable development of its host communities. In line with this vision, RTFT is actively involved in a regional economic development approach aimed at bolstering community development and consolidating economic activities.

RTFT’s mine and port operations have suffered several setbacks in recent years, leading to a shorter operating season and personnel reductions. At the same time, the Havre-Saint-Pierre community has experienced higher unemployment, business closures, a rise in outbound population migration, etc. Even though RTFT is not the region’s biggest employer, it plays a key role in the economy.
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