2016



Neighbour news

Diluent recovery unit plans advance

Imperial is continuing to advance planning, consultation and other work in preparation for submitting regulatory applications to build and operate a diluent recovery unit (DRU) at the Strathcona refinery.

Following a public information open house in November 2015, Imperial is preparing a submission to government regulators related to comments received from neighbours at the open house. The comment included questions regarding air emissions from the proposed unit, the potential for increased traffic during construction, and whether the unit would increase noise levels. Imperial's responses to questions and concerns from neighbours will form part of the Project Description (PD) the company plans to submit to regulators. Following submission of the PD, the public will have another opportunity to review and comment on plans for the proposed project.

"Community members and other stakeholders will continue to be engaged throughout the regulatory process," says refinery manager Dave Oldreive. "We're working hard to ensure that the input and concerns of our neighbours are considered, assessed and incorporated into the project planning process."

The proposed unit would remove the diluent, a thinning agent, from diluted bitumen. Producers

add diluent to reduce the viscosity of bitumen so it can more easily flow through pipelines to refineries.

After the diluent has been removed, the resulting bitumen from this unit would be sent from the Strathcona refinery by a short, heated pipeline to the nearby Edmonton Rail Terminal. The removed diluent would be transported by pipeline to northern Alberta for re-use. The proposed unit will not be connected to the existing refinery processes for the manufacture of products, but will be located on land that is within the current refinery fence line, and would make use of some existing available infrastructure.

Removing the diluent prior to rail shipment will improve transportation efficiency and redirect diluent to facilities that need it. Whether diluent is separated from bitumen in Edmonton or in southeastern United States, the volume of greenhouse gas (GHG) emissions generated will be the same. Separating out the diluent in Edmonton means it won't have to go on a several thousand kilometre round trip to markets in the USA. This will actually reduce the total amount of GHG generated globally as it reduces the amount of fuel needed per barrel of bitumen delivered to market. What is different is that the GHG emissions from the separation process will be regulated in Alberta rather than at the receiving refinery in the USA.



Together in our community

Imperial and our employees at the Strathcona refinery are committed to making positive and lasting contributions that support safe, thriving, healthy communities. Visit www.imperialoil.ca/community to learn more about donations, sponsorship and volunteerism, or to apply for funding.

2015 United Way campaign earns spirit award

The Imperial and Unifor Local 21A workplace campaign provided \$337,000 for the Alberta Capital Region United Way in 2015. The campaign was marked by unprecedented levels of participation (including 39 new Leader of the Way donors) and numbers of staff volunteers running creative, daily events from mini-donuts to hardest shot contest, raffles and pancake breakfast. Co-chairs Tim MacLean and Bill Williams were honoured with the Award of Distinction for Employee Campaign Chair of the Year (private sector) for their education and awareness efforts.





Photo credit: Ellen V Photography

Sherwood Park Chamber safety award

Across Imperial we work every day to ensure Nobody gets hurt. In 2015, the Sherwood Park and District Chamber of Commerce recognized Imperial with its Occupational Health and Safety Award as the business demonstrating "outstanding performance in workplace health and safety through employee training, working systems and a stellar record of safety". Strathcona refinery manager of security, safety, health and environment, Bill Lawrysyn accepted the award on behalf of all our employees.

Capilano Community League park for all ages

Imperial presented a \$10,000 cheque to the Capilano Community League in July for the Capilano community park redevelopment project. Now in the second phase, the park revitalization project includes 2016 installation of a 700-metre walking trail loop, adult exercise equipment stations, a bike bumps course, additional park furniture and a community events sign. The final elements will help fulfill the vision of a park for all ages and a vital community gathering place.



Performance

| | Issue | Indicator | 2013 | 2014 | 2015 | Comments |
|---------------------------|---|---|--------|--------|--------|--|
| Environmental performance | Air quality | Sulphur dioxide (SO₂) (tonnes/year) | 4036 | 4248 | 4318 | |
| | | Nitrogen oxides (NOx) (tonnes/year) | 1495 | 1531 | 1551 | The emission trend for SO $_2$, NOx and VOC has been generally consistent over the past years. |
| | | Volatile organic compounds (VOC) (tonnes/year) | 698 | 727 | 740 | |
| | Regulatory compliance (Number of times government requirements were temporarily exceeded) | Environmental regulatory incidents (One event can lead to multiple exceedances) | 1 | 0 | 1 | The refinery had a single marginal air exceedance of SO_2 tonnes/hour at the main stack during turnaround activities. |
| | Spills | Number of oil and chemical spills (> one barrel) | 0 | 0 | 0 | The refinery had a flawless year in 2015 with no reportable spills. |
| | Water quality (includes all water discharged to the North Saskatchewan River, including storm water that enters the refinery's water handling system) | Oil and grease (kg/day) | 7.6 | 7.5 | 3.4 | Oil and grease content in the storm water runoff has continued to decrease over the past couple of years. The discharge of suspended solids is largely linked to storm events and periods of elevated runoff. The discharge remains well within approval limits. |
| | | Total suspended solids includes organic matter and silt (kg/day) | 76.0 | 68.0 | 44.0 | Total suspended solids in the storm water runoff have decreased over the past couple of years. The discharge of suspended solids is largely linked to storm events and periods of elevated runoff. The discharge remains well within approval limits. |
| | | Ammonia (kg/day) | 2.7 | 1.1 | 0.5 | Ammonia levels in the storm water runoff have decreased compared to 2014. Ammonia levels were well within approval limits. |
| | Greenhouse gas emissions (GHGs) | Direct GHGs from running our operations (thousand tonnes of CO ₂ equivalent) | 1501 | 1575 | 1550 | |
| | | Indirect GHGs from purchased electricity (thousand tonnes of CO ₂ equivalent) | 407 | 422 | 400 | GHG emissions remain generally flat year over year. |
| | | Total GHGs Total direct + indirect purchased (thousand tonnes of CO ₂ equivalent) | 1908 | 1997 | 1950 | |
| Workforce | Employment | Number of employees | 450 | 420 | 490 | This represents the total number of on-site employees. |
| | | Number of contractors (average daily number) | 700 | 400 | 500 | The number of contractors varies depending on the scope of refinery projects, construction or maintenance work in a year. |
| | Safety Total recordable incident rate | Employees | 0.22 | 0.00 | 0.43 | We always strive to our goal of <i>nobody gets hurt</i> . |
| | (Number of incidents per 200,000 hours worked) | Contractors | 0.00 | 0.13 | 0.12. | Contractors at Strathcona continue to have excellent safety performance, completing 8-plus years lost-time injury-free. |
| Community | Contributions | United Way | \$443K | \$470K | \$589K | Imperial and Unifor Local 21A run an annual workplace United Way campaign. Giving back is consistent with our commitment to Canadians and the communities where we live and work. |

What it means when you hear our alarms

Strathcona refinery's emergency warning system consists of a series of air horn alarms to alert our personnel of potential emergencies at the site. These alarms are tested every Monday at noon. Should you hear an alarm outside of this testing period, a call from police or an alert on radio or television will advise if an emergency can affect you. You can also call the UPDATEline at any time for current information.



From the manager

Neighbour news interviews Refinery Manager Dave Oldreive about the community's most frequently asked questions about Strathcona refinery.

Introducing our new refinery manager

Dave Oldreive has spent his 21-year career to date with Imperial, both across Canada and internationally. A mechanical engineer, he first joined the Strathcona refinery as technical manager in 2007. In 2014, Dave became operations manager and this summer took the reins as refinery manager.

Having worked at many refineries, what do you find most impressive about Strathcona?

The people at Strathcona refinery are the absolute best at what they do. It's an excellent group of folks that consistently deliver world class results. They are engaged and want to run the business ethically and in a way that delivers bottom line results. I'm continuously impressed with how we all work together.

How is the challenging economy impacting Strathcona refinery?

It's times like this that I'm most proud to work for Imperial because our priorities don't change whether the market is in our favour or not. We always run in a safe and environmentally responsible way, to be reliable and efficient.

We keep a long term view. While competitors are laying people off, we've hired in operations, mechanical and technical areas.

Our community investment remains strong because we know people need help now more than ever. Our joint site United Way campaign last year raised a record \$337,000. With additional corporate activities the total donations benefiting the Edmonton region was over \$589,000.

That's not to say that we aren't impacted by a tough economy. But this is when we really shine.

What will be your focus as refinery manager?

Keeping people safe and protecting the environment are the most important things we do here.

We have robust procedures and standards but most importantly, we have to keep building a culture where everyone who walks through the gate makes safety their priority. We have reduced the number of injuries by over 70 percent over 10 years and we are an industry leader.

Of course we're not satisfied until nobody gets hurt.

On the environmental side we have a number of projects to increase energy efficiency across the site. And we know flaring can have an impact on our neighbours so we have reduced that and recently installed a new flare tip that further reduces noise.

How's business in general?

The refinery is in great shape. The annual spring maintenance turnaround had over 500,000 hours of work completed safely, on budget and on time. That's important so we can continue to meet the energy needs of the region.



Strathcona Refinery Manager Dave Oldreive

How to reach us

If you detect any unusual odours, sights or sounds, please call the refinery 24-hours a day at **780-449-3776** (ESSO). We would be pleased to hear your comments – please call, email or write: Telephone: Community relations office at 780-449-8571 Email: **imperial.strathcona@esso.ca** Address: Imperial Oil Strathcona Refinery P.O. Box 1020 Edmonton, Alberta T5J 2M1 Online: **imperialoil.ca/strathcona**