



2018 Sustainable Development

**GRI Index Update**



	<b>Economic</b>
	<b>Environment</b>
	<b>Social: Labour Practices and Decent Work</b>
	<b>Social: Human Rights</b>
	<b>Society</b>
	<b>Product Responsibility</b>
	<b>Cameco Indicators</b>

## Economic

### EC1 - DIRECT ECONOMIC VALUE

This indicator provides information about Cameco's annual revenue, operating costs, employee wages and benefits, payments to providers of capital, payments to governments, community investments and economic value retained.

	2013	2014	2015	2016	2017
Revenues	2,438,723	2,397,532	2,754,378	2,431,404	2,156,852
Operating Costs	1,634,941	1,523,724	1,783,222	1,734,758	1,487,707
Employee Wages and Benefits	462,164	464,021	507,767	487,349	431,559
Payments to Providers of Capital	224,073	236,344	227,820	228,756	227,795
Payments to Government	96,357	233,716	92,758	114,669	90,830
Community Investments	4,085	4,279	3,794	3,520	1,476
Economic Value Retained	17,103	-64,552	139,017	-137,648	-82,515

All figures in Canadian dollars (1,000s).

As of 2013, IFRS 11 – Joint Arrangements requires that we account for our former interest in Bruce Power Limited Partnership using equity accounting. Our results for 2012 and 2013 have been revised for comparative purposes. We divested our interest in BPLP effective January 1, 2014.

### Revenue by region

(Revenue is attributed to the geographic location based on the location of the entity providing the services)

	2013	2014	2015	2016	2017
Canada	230,505	308,327	341,568	347,536	316,611
Germany	232,296	174,622	276,833	181,189	147,305
United States	1,975,922	1,914,583	2,135,977	1,902,679	1,692,936
Totals	2,438,723	2,397,532	2,754,378	2,431,404	2,156,852

### What it means

In 2017, revenue decreased as a result of reduced sales volume and lower realized prices. Employee wages and benefits were also down as a result of a reduced workforce and lower severance payments. Finally, payments to government were down as a result of tax recoveries in the U.S. relating to NUKEM Inc. and lower tax requirements overall due to reduced profits.

## Note

Canada, the United States, Australia and Kazakhstan are all compliant with the Extractive Industries Transparency Initiative.

## EC6 - LOCAL HIRING

This indicator provides information about the number of local employees at our operations in northern Saskatchewan, and the number of senior managers from those local communities. We focus specifically on northern Saskatchewan because it is a remote region where there are few employment options and employees would otherwise be flown in. Most of our other operations are located in larger centres where local hiring is not a critical issue.

	2013	2014	2015	2016	2017
Local employees / total	747/1500	794/1600	811/1629	704/1438	603/1197
% employees from local communities	49.80%	49.60%	49.80%	49.00%	50.40%

	2013	2014	2015	2016	2017
Senior managers from local communities / total senior managers	2 of 28	2 of 26	2 of 24	3 of 21	1 of 16
% senior management from local communities	7.10%	7.70%	8.33%	14.28%	6.25%

## What it means

Our preference is to hire locally wherever we operate, and that commitment is formalized in our [corporate social responsibility policy](#). While our overall local employment numbers decreased once again in 2017 in northern Saskatchewan as a result of corporate wide staffing reductions, we continue to see more than 50% of our workforce hired from the region.

## Definitions

*Senior manager* – A manager or superintendent level employee.

*Local employee* – To be considered a local employee in northern Saskatchewan, you must be registered as a Resident of Saskatchewan's North (a designation defined and managed by the Saskatchewan government) at the time of hire.

## EC7 - INFRASTRUCTURE AND SERVICE INVESTMENTS

This indicator provides an overview of Cameco's investments in infrastructure and services for local communities in Canada,

the US and Kazakhstan.

**a – Needs assessments**

We have not completed a formal infrastructure needs assessment in our local communities.

**b – Current (or expected) impact of infrastructure and service investments**

Since 2009, Cameco has invested nearly \$10.5 million in support of infrastructure improvement projects in local communities.

## **What it means**

2017 saw a decrease in the total value of donations Cameco provided to the communities where we operate due to lower revenues. As a result, infrastructure related investments were also down. Cameco does not specifically target infrastructure investments, but we receive many requests for investments from local communities to support these types of projects because many of these communities have infrastructure deficits.

We target four areas for support from our community investment fund:

- youth
- health and wellness
- education and literacy
- community development

## **About this indicator**

The community investments measured and reported on in this indicator are also included in the community investment total in EC1.

For this indicator, we have not included any infrastructure that was built primarily for business purposes but that local communities may also benefit from (i.e. roads). We also do not count any community investment payments provided to communities we have signed collaboration agreements with in northern Saskatchewan or payments we make to the Six Rivers Trust.

## **EC8 - INDIRECT ECONOMIC IMPACT**

This indicator provides information about our economic impact on particular geographic areas, including the secondary or indirect impact of Cameco's operations.

## **What it means**

While Cameco is a significant economic contributor, both directly through salaries, wages, and local procurement, and indirectly through secondary employment and secondary economic activity, this has been impacted in recent years due to changes in our operations and support functions. These operational changes include the suspension of production at Rabbit Lake and curtailment at the US operations in 2016, the suspension of production at our McArthur River/Key Lake operation in 2018, the reduction of the workforce at our northern Saskatchewan operations and at our corporate office, and the changes made to the way our global marketing activities are organized all of which have had a significant impact on the

communities where we operate. While we regret the negative impact that these carefully deliberated decisions have on the communities where we operate, these actions are deemed necessary for the long-term health of the company in a uranium market that continues to be weak and oversupplied. Improving operational efficiency is part of our strategy to effectively manage costs and remain competitive through these low times, while positioning the company and our stakeholders to benefit as the market improves.

## EC9 - LOCAL SPENDING

This indicator shows the total dollar amount of goods and services procured from local suppliers for Cameco's operating sites in northern Saskatchewan, Kazakhstan and Ontario each year from 2013 to 2017.

	2013	2014	2015	2016	2017
<b>Kazakhstan</b>	(USD)	(USD)	(USD)	(CDN)	(CDN)
Total procurement	\$46,561,825	\$15,330,067	\$8,975,450	\$10,286,189	\$21,197,921
Local procurement	\$42,583,560	\$14,837,659	\$8,250,858	\$9,370,716	\$19,107,906
% Local procurement	91%	97%	92%	91%	90%
<b>N. Saskatchewan</b>	(CDN)	(CDN)	(CDN)	(CDN)	(CDN)
Total procurement	\$670,539,245	\$466,883,286	\$392,905,203	\$265,667,553	\$214,796,210
Local procurement	\$451,619,699	\$333,493,389	\$299,965,204	\$210,965,605	\$171,957,279
% Local procurement	67%	71%	76%	79%	80%
<b>Ontario</b>	(CDN)	(CDN)	(CDN)	(CDN)	(CDN)
Total procurement	\$94,140,859	\$89,808,641	\$109,445,410	\$109,247,983	\$93,608,511
Local procurement	\$61,592,889	\$48,749,026	\$51,480,769	\$51,737,878	\$43,458,145
% Local procurement	65%	54%	47%	47%	46%
<b>U.S.</b>	(USD)	(USD)	(USD)	(CDN)	(CDN)
Total procurement	N/A	N/A	\$36,186,297	\$22,034,287	\$9,294,959
Local procurement	N/A	N/A	\$20,811,775	\$11,154,100	\$3,167,431
% Local procurement	N/A	N/A	58%	51%	34%
<b>Total</b>	(CDN)	(CDN)	(CDN)	(CDN)	(CDN)
Total procurement	\$811,241,929	\$572,021,994	\$547,512,363	\$407,236,013	\$338,897,601
Local procurement	\$555,796,148	\$397,080,074	\$380,508,609	\$283,228,301	\$237,690,760
% Local procurement	69%	69%	70%	70%	70%

## What it means

We are committed to using local suppliers wherever we operate. It is a commitment codified in our *procurement of goods and services policy* and exemplified by our spend in northern Saskatchewan where we have procured over \$3.6 billion in services from local companies since 2004. While our overall local procurement spend was down in 2017 due to a lower capital spend throughout the company as a result of a difficult uranium market, the proportion of spend that went to local contractors remained consistent with previous years.

## Definitions

*Local supplier* – Is defined differently for each of Cameco's operating locations as follows:

*Northern Saskatchewan local supplier* – A company or joint venture that is at least 50% owned by people or communities from the Northern Administrative District.

*Ontario local supplier* – One located in the province of Ontario.

*Kazakhstan local supplier* – A Kazakhstan producer of works and services and Kazakhstan producers of goods which is determined by the Republic of Kazakhstan (RK) Law on subsoil and subsoil usage. A Kazakhstan producer of works and services is defined as citizens of the RK and/or legal entities established in accordance with laws of the RK which are located within the territory of the RK and engage no less than 95% of citizens of the RK of the total number of employees.

*U.S. local supplier* – A supplier located in the same state as the U.S. mine operations. For Crow Butte operations a local supplier is considered to be a supplier located in the state of Nebraska. For Smith Ranch-Highland operations a local supplier is considered to be a supplier located in the state of Wyoming.

## Note

Northern Saskatchewan procurement spend includes services only.

## Environment

### EN3 - ENERGY CONSUMPTION (WITHIN ORGANIZATION)

This indicator presents Cameco's energy consumption in petajoules, including energy consumed as fuel from non-renewable sources and energy consumed as electricity. Energy consumed as fuel from non-renewable sources is calculated by applying a fuel and country-specific energy content factor to the consumed volume of non-renewable energy sources at Cameco's operations. These energy sources include propane, natural gas, diesel and gasoline. Published Canadian energy content factors were applied to energy sources consumed at our operation in Kazakhstan. Cameco does not utilize renewable energy sources directly. Energy consumed as electricity is calculated by applying a conversion factor of 0.0036 gigajoules per kilowatt hour (GJ/kwh) to the raw electricity consumption. Cameco does not sell energy as electricity, heating, cooling, or steam.

	2013	2014	2015	2016	2017
Total fuel consumption from non-renewable	3.1	3.2	3.0	2.6	2.3

	2013	2014	2015	2016	2017
sources (PJ)					
Total electricity consumption (PJ)	2.1	2.2	2.2	2.1	1.9
Total energy consumption within the organization (PJ)	5.2	5.4	5.1	4.7	4.2

## What it means

The total energy consumed by Cameco in 2017 was lower as compared with previous years as a result of reduced activity and production at some operations.

In 2017, we updated our historical fuel consumption from non-renewable sources as a result of revisions to ensure consistency in the fuel consumption attributed to each operation.

## EN8 - WATER WITHDRAWAL

This indicator presents the annual volume of water withdrawal in millions of cubic metres (Mm<sup>3</sup>). Cameco withdraws water from surface water, collects groundwater, and also withdraws water from municipal water utilities in the areas where we operate. Rainwater that comes into contact with our operations is collected and stored, and is reflected in our water withdrawal volumes. Cameco does not withdraw wastewater directly from other organizations. Water withdrawal from our exploration activities is not included.

	2013	2014	2015	2016	2017
Total intake (Mm <sup>3</sup> )	20.6	18.9	18.3	18.8	18.2

## What it means

Trends in the annual volume of water withdrawn are similar to overall trends in the annual volume of water discharged. This is because the volume of water withdrawn is largely estimated based on the volume of water discharged.

In 2017, the volume of water withdrawal was lower as compared with historical values. This is associated with a lower volume of cooling water intake from the Port Hope Conversion Facility as well as a lower quantity of water intake from Rabbit Lake, which remained in a safe non-producing state.

## MM1 - OPERATIONAL FOOTPRINT

This indicator measures the amount of Cameco's land currently in use and not yet rehabilitated. It does not include land we own/lease that has not been disturbed.

2013	2014	2015	2016	2017
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	2013	2014	2015	2016	2017
<b>Total land disturbed and not yet rehabilitated (hectares)</b>					
Year End Total	3,206	3,361	3,654	3,719	3,733
Additional Land Disturbed	97	155	293	65	14

*This indicator excludes advanced non-operational sites (Kintyre, Yeelirrie, Millennium), office structures, exploration activities, operations in which Cameco does not have operational control, or rented facilities that Cameco operates (Cobourg).*

## What it means

Approximately half of Cameco's disturbed lands are from our ISR operations, which use a much less invasive process than conventional mines in terms of surface disturbance. Our operations in northern Saskatchewan, which are our largest operations by production, have a very small operational footprint and produce a product that provides very large amounts of energy. For example, in 2017, our McArthur River and Cigar Lake operations produced enough uranium to meet the electrical needs of every Canadian household for four years – all from operations with a surface area footprint of five square kilometers.

## Definitions

The definition of land disturbed and not yet rehabilitated is dependent on the jurisdiction of the operation as listed below:

- In Saskatchewan, total land disturbed and not yet rehabilitated is defined as “Developed” land
- In the United States, total land disturbed and not yet rehabilitated is defined as “Affected Area”
- For Ontario, total land disturbed is equal to the licensed area of the facility
- For Kazakhstan, total land disturbed is equal to the area of land impacted

## EN15 - DIRECT GHG EMISSIONS (BY WEIGHT)

This indicator presents Cameco's scope 1 greenhouse gas (GHG) emissions as kilotonnes of carbon dioxide equivalents (CO<sub>2</sub>e). CO<sub>2</sub>e is used to compare the emissions from various GHG sources based on their global warming potential (GWP). Cameco adopted the GWPs published by the International Panel on Climate Change in their Fourth Assessment Report for 2015.

Cameco's significant sources of scope 1 GHG emissions include those generated by the consumption of fuel from non-renewable sources and industrial processes. In 2017, we added estimates of Scope 1 GHG emissions from waste and wastewater facilities at our Saskatchewan operations in accordance with technical guidance published by Environment and Climate Change Canada through the Greenhouse Gas Reporting Program.

Emissions factors that are country and fuel-specific are used to convert the fossil fuels consumed to GHG emissions in CO<sub>2</sub>e. For our Canadian and Kazakhstan operations, we have used emission factors published by Environment Canada in



2018 for Canada's National Inventory Report 1990 – 2016 of GHG emissions to the United Nations Framework Convention on Climate Change. For our U.S. operations, we use the emission factors published by the US EPA in the Emission Factors for Greenhouse Gas Inventories March 2018 document.

	2013	2014	2015	2016	2017
<b>Corporate totals of GHG emissions (kilotonnes CO<sub>2</sub>e)</b>					
Scope 1 (EN15)	193	198	184	160	143

## What it means

Scope 1 GHG emissions were lower in 2017 as compared with previous years as a result of reduced activity and production at some operations.

In 2017, we updated our historical Scope 1 GHG emissions as a result of revisions to ensure consistency in fuel consumption attributed to each operation.

## EN16 - INDIRECT GHG EMISSIONS (BY WEIGHT)

This indicator presents Cameco's scope 2 greenhouse gas (GHG) emissions as kilotonnes of carbon dioxide equivalents (CO<sub>2</sub>e). CO<sub>2</sub>e is used to compare the emissions from various GHG sources based on their global warming potential (GWP). Cameco adopted the GWPs published by the International Panel on Climate Change in their Fourth Assessment Report.

Scope 2 GHG emissions are calculated by applying a utility or region-specific emission factor to the amount of electricity purchased from that utility or region, which is determined through utility invoices.

	2013	2014	2015	2016	2017
<b>Corporate totals of GHG emissions (kilotonnes CO<sub>2</sub>e)</b>					
Scope 2 (EN16)	324	350	340	323	271

## What it means

Scope 2 GHG emissions were lower in 2017 as compared with previous years as a result of reduced activity and production at some operations.

## EN21 - AIR EMISSIONS (BY TYPE AND WEIGHT)

This indicator presents the total air emissions from our Canadian operations of nitrogen oxides (NO<sub>x</sub> expressed as NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), carbon monoxide (CO), volatile organic compounds, total particulate matter (PM), particulate matter less than 10 microns (PM<sub>10</sub>), particulate matter less than 2.5 microns (PM<sub>2.5</sub>), ammonia (NH<sub>3</sub>), uranium (U) and hydrogen

fluoride. Air emissions of constituents are presented in kilotonnes except for uranium and hydrogen fluoride that are reported in tonnes. Air emissions from our in situ recovery operations in the United States and Kazakhstan are not material for this indicator and are not included.

Air emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO, VOCs, PM, PM<sub>10</sub>, PM<sub>2.5</sub> and NH<sub>3</sub> are calculated using the guidance provided by Environment Canada through the National Pollutant Release Inventory. The total air emissions for these constituents include air emissions released through point sources such as process stacks, storage and handling, fugitive emissions, and as a result of road dust. Air emissions of uranium and hydrogen fluoride include air emissions released through point sources.

	2013	2014	2015	2016	2017
<b>Air emissions (kilotonnes)</b>					
Oxides of Nitrogen NO <sub>x</sub> (expressed as NO <sub>2</sub> )	0.6	0.6	0.5	0.3	0.2
Sulphur Dioxide (SO <sub>2</sub> )	0.3	0.3	0.1	0.2	0.3
Carbon Monoxide (CO)	0.5	0.5	0.5	0.4	0.1
Volatile Organic Compounds	0.3	0.2	0.2	0.1	0.1
Total Particulate Matter	0.8	0.8	0.8	0.6	0.5
PM <sub>10</sub> – Particulate Matter <= 10 microns	0.3	0.3	0.3	0.2	0.2
PM <sub>2.5</sub> – Particulate Matter <= 2.5 microns	0.1	0.1	0.1	0.1	0.0
Ammonia (NH <sub>3</sub> )	0.1	0.1	0.1	0.1	0.1
Uranium*	0.2	0.6	0.1	0.1	0.2
Hydrogen Fluoride*	0.7	0.4	0.4	0.3	0.5

\*Uranium and hydrogen fluoride are reported in tonnes

## What it means

In general, our emissions trend over the past five years is the result of normal variations in our processes, production output year to year, and changes made to reduce emissions of sulphur dioxide at our Saskatchewan uranium milling operations and uranium and hydrogen fluoride at our Ontario Fuel Services operations.

In 2017, oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), total particulate matter (TPM), PM<sub>10</sub> and PM<sub>2.5</sub> were lower in comparison to previous years. Lower emissions of these constituents are mostly attributed to reduced activity at our Saskatchewan mining and milling operations, particularly at Rabbit Lake. Lower NO<sub>x</sub> emissions were also partly attributed to reduced use of on-site back-up generators at our Saskatchewan mine and mill operations due to an upgraded electrical transmission line becoming operational in 2015. The change in CO emissions was also partly associated with the calculation method for annual CO emissions at the Key Lake Operation.

## Note

We have updated the 2014 reported emissions of uranium as a historical error was recognized and corrected for one site.

## EN22 - WATER DISCHARGE (BY QUALITY AND DESTINATION)

This indicator presents the annual volume of planned water discharge in millions of cubic metres (Mm<sup>3</sup>) by destination (i.e. surface water, municipal treatment facilities, land, evaporation pond, or deep disposal well) and treatment method (i.e. treated by Cameco, treated by municipal authorities, clean, or untreated). Cameco does not re-use water produced by other organizations.

This indicator also includes information about the quality of the water we discharge to surface water bodies, land application via irrigation, and municipal treatment facilities. We report the total amount of certain materials discharged over the year in kilograms (kg). The totals are calculated by multiplying the volume of water discharge by the concentration of the constituent in water. An increase may mean either an increase in water flow or an increase in the constituent concentration in the water.

	2013	2014	2015	2016	2017
<b>Annual volume (Mm<sup>3</sup>)</b>					
Discharge of clean diverted water to surface water	5.6	5.2	5.4	5.3	5.0
Discharge of water to municipal treatment facilities	0.3	0.4	0.2	0.1	0.2
Discharge of clean treated water to surface water	12.7	11.8	11.4	12.1	11.5
Discharge of clean treated water to land application via irrigation	0.1	0.1	0.1	0.1	0.1
Discharge of water to deep disposal well	1.1	1.0	0.8	0.8	0.9
Discharge of water to evaporation pond	0.3	0.2	0.2	0.2	0.3
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Discharged to surface water (kg)</b>					
Arsenic	38	38	40	54	44
Copper	41	39	47	31	25
Lead	14	13	10	9	9
Molybdenum	1,986	1,825	1,606	1,750	1,034
Nickel	272	221	165	252	183
Radium-226*	242	206	268	253	276
Selenium	46	43	40	36	27

	2013	2014	2015	2016	2017
Total suspended solids	15,633	13,957	14,344	14,090	11,437
Uranium	319	249	303	363	303
Zinc	37	47	27	34	31
<i>*Radium-226 is reported in MBq</i>					
<b>Discharged to municipal treatment facilities (kg)</b>					
Total Uranium	4	8	4	3	8
<b>Treated water discharged to land application via irrigation (kg)</b>					
Arsenic	0	0	0	0	0
Selenium	1	2	1	2	0
Uranium	28	78	39	78	26

## What it means

### Water discharge quantity

In 2017, the volume of clean diverted water discharged to surface water was lower than the previous four years due to a decrease in cooling water returns from the Port Hope Conversion Facility. A lower trend was also observed for the volume of clean treated water discharged to surface water due to reduced activity at Rabbit Lake.

In 2017, the volume of water discharged to municipal treatment facilities was slightly higher due to a higher volume of water discharged from the Port Hope Conversion Facility in 2017 as compared with 2016.

In 2017, the volume of water discharged to a deep disposal well and discharged to an evaporation pond was higher as compared with 2016. This change is attributed to increased flows for groundwater restoration at the Smith-Ranch Highland operation.

### Water discharge quality

In 2017, the quality of the clean treated water discharged to surface water complied with all applicable regulatory limits. Cameco remains focused on improving the quality of our clean treated water discharged to surface water. This focus has involved improvement in our water management practices and treatment technologies, and has resulted in a significant decline in the mass loadings of molybdenum, selenium and uranium in treated water discharged to surface water over the past number of years.

In 2017, the loadings of most constituents in clean treated water discharged to surface were lower as compared with 2016. This is attributed to reduced activity and absence of production at Rabbit Lake in 2017.

## EN23 - WASTE

This indicator presents the total amount of non-hazardous, hazardous, and low-level radioactive waste we generate in kilotonnes. Cameco does not generate intermediate or high level radioactive waste.

The total amount of waste generated in each category is separated and presented by disposal method: diverted, landfilled or stored on site. Diverted materials include those that are recycled, reused, incinerated, repurposed or reprocessed. We separate waste into these disposal categories using internal tracking systems that track the inventory of waste on site and the transfer of waste off site. The amount of waste transferred off site is confirmed through information provided by the receiving organization.

	2013	2014	2015	2016	2017
<b>Total waste (kilotonnes)</b>					
Generated	19.0	17.6	18.1	14.2	9.1
Diverted	3.3	3.4	5.2	3.0	3.0
Landfilled or stored	15.7	14.2	12.9	11.2	6.1
Overall rate of diversion (%)	17%	19%	29%	21%	33%
<b>Non-hazardous waste (kilotonnes)</b>					
Generated	5.5	5.2	6.4	3.9	3.2
Diverted	1.5	2.1	3.8	1.5	1.2
Landfilled or stored	3.9	3.1	2.6	2.4	2.0
Rate of diversion (%)	28%	40%	59%	38%	39%
<b>Low-level radioactive waste (kilotonnes)</b>					
Generated	13.2	12.0	11.2	9.8	5.6
Diverted	1.5	1.0	1.1	1.1	1.6
Landfilled or stored	11.6	11.0	10.1	8.6	4.0
Rate of diversion (%)	12%	8%	10%	12%	28%
<b>Hazardous waste (kilotonnes)</b>					
Generated	0.3	0.5	0.6	0.5	0.3
Diverted	0.2	0.4	0.4	0.4	0.2
Managed via treatment/disposal	0.1	0.1	0.2	0.1	0.1
Rate of diversion (%)	67%	82%	68%	72%	67%

## What it means

Overall, the amount of waste we generated in 2017 was lower than in previous years. This is explained by reduced activity and production at some operations.

## Definitions

*Non-hazardous waste* – Includes domestic, commercial and industrial materials that become waste, such as plastic, tin, paper and cardboard, tires, metal, wood pallets, kitchen cooking oil and wood.

*Low-level radioactive waste* – Includes industrial materials that have become contaminated with radioactive material and are more radioactive than clearance levels and exemption quantities allow. This type of waste includes industrial materials such as protective equipment, paper, cardboard, equipment, tools, metal, plastic, concrete, sand, sludges, insulation and wood.

*Hazardous waste* – Includes hazardous recyclable materials, and generally means a waste with hazardous properties that may have potential effects to human health of the environment. The hazardous waste we generate includes materials such as used petroleum fuels (oil, diesel, gas), batteries, paint and paint related materials, compressed gas cylinders and light fixtures.

## Note

In 2017, we removed the quantities of low level radioactive waste repurposed for use as backfill underground at one site from our totals back to 2014.

## MM3 - MINE WASTE (OVERBURDEN, ROCK, TAILINGS, SLUDGES)

This indicator provides information about the amount of solid waste generated annually in the form of tailings, water treatment sludge and slime, the net annual change in our unreclaimed waste rock inventory (including mineralized and non-mineralized rock), and the total mine waste generated for each year. We do not disclose any risk assessment associated with this indicator, although all are complete and provided to our regulators.

	2013	2014	2015	2016	2017
<b>Mine waste (tonnes)</b>					
Annual tailings and process wastes generated	696,204	667,128	595,717	292,945	181,526
Annual change in unreclaimed waste rock inventory	-8,629,743	-1,282,110	-37,541	-51,251	-3,274
Net of wastes created and reclaimed	-8,048,632	-614,982	558,176	241,695	178,252

## What it means

The amount of tailings and process wastes we produce depends primarily on production rates and ore grades. When we expand production our tailings and waste generally increase. This is also the case when ore grades are low since we must process more rock to obtain the same amount of uranium. However, our currently operating mines are either ISR mines,

which do not produce waste rock, or underground mines, which produce very little waste rock compared to open-pit mines. We also look for ways to reduce waste rock by repurposing it as underground backfill or for road construction, for example. In some years, this has resulted in a net decrease in inventory.

Since 2012, we have seen significant variance in our inventory of unreclaimed waste rock. Changes in waste rock inventory from year to year are variable and depend on the quantity of waste rock generated by mining operations versus the quantity of waste rock used in our processes, and/or transferred into a reclaimed state. The reduction in tailings and process waste generation rates in 2016 and 2017 is primarily due to the suspension of milling at Rabbit Lake Operation in April 2016 in combination with reduced production at Key Lake.

## EN24 - SIGNIFICANT INCIDENTS (TOTAL NUMBER AND VOLUME)

This indicator provides information about the number of significant environmental incidents. We determine significance based on the incident's actual or potential environmental impact, or by the level of regulatory and public concern about it.

For significant incidents, we report the total quantity of material released and any associated impacts.

	2013	2014	2015	2016	2017
Total number	0	0	0	0	0
Quantity	0	0	0	0	0

### What it means

Cameco has been focused on minimizing environmental incidents for many years, and has used the number of environmental incidents as the main measure for determining environmental performance related to employee and officer compensation. As such, the number of reportable environmental incidents has improved markedly, and Cameco has not had a significant environmental incident since 2008. Beginning in 2016, the corporate environmental objective was transitioned from an incident-based measure to one based on significant environmental aspects. However, there is an overriding compensation target that affects employee and executive compensation if we sustain a significant environmental incident.

### Definitions

*Significant environmental incident* – Any environmental incident that results in moderate or significant environmental impacts or current and future remediation costs of greater than \$1 million, or has reasonable potential to result in significant negative impact on the company's reputation with our major stakeholders.

## EN29 - SIGNIFICANT ENVIRONMENTAL FINES

This indicator provides information on the number of "significant environmental fines" that we received for non-compliance with environmental laws and regulations, as well as the total number of "non-monetary sanctions." It does not include significant environmental fines or non-monetary sanctions that are in the appeals process or imposed through national or

international dispute resolution mechanisms.

	2013	2014	2015	2016	2017
Significant environmental fines	0	0	0	0	0
Non-monetary sanctions	2	3	0	2	9

## What it means

In 2017, nine Notices of Violation (NOV), all stemming from two related incidents, were imposed on Cameco's U.S. operation, Smith-Ranch Highland, by the U.S. Nuclear Regulatory Commission (NRC) for non-compliance with license conditions related to releases from packaging during transport. These NOV's were: (i) Failure to use an adequate method to analyze water and barium sulphate sludge shipments; (ii) Failure to list radioactivity on shipping documents; (iii) Failure to enter required information on packaging labels; (iv) Failure to calculate correctly, and therefore mischaracterizing, the total activity of a material during transport; (v) Failure to use the correct shipping container; (vi) Failure to use the correct shipping package; (vii) Failure to ensure that the packaging would withstand effects during transport; (viii) Failure to name each radionuclide and its chemical and physical form on shipping material description; and (xi) Failure to provide function-specific hazmat training for employees.

No significant environmental effects occurred for the released and all corrective actions were completed and approved by the NRC.

## Definitions

*Significant environmental fine* – Fines that exceed CDN \$100,000 paid by Cameco or a controlled subsidiary in Canada, the US or Kazakhstan to a government authority for non-compliance with environmental laws or regulations.

*Non-monetary sanctions* – An administrative or judicial sanction levied against Cameco or a controlled subsidiary for non-compliance with environmental laws and regulations. Non-monetary sanctions include, but are not limited to, formal actions issued by regulatory authorities at the level of notices of violation or notices of contravention or above, pursuant to a graduated enforcement regime.

## Social: Labour Practices and Decent Work

### LA1 - HIRING AND TURNOVER (BY AGE GROUP, GENDER)

This indicator provides information about our annual rates of hiring and turnover, and the total number of employees who are hired or leave the organization, by gender and age group.

	New hires	Year end	Rate	Turnover	Year end	Rate
<b>2013</b>						
Male	209	2,535	8.24%	338	2,535	13.33%



	<b>New hires</b>	<b>Year end</b>	<b>Rate</b>	<b>Turnover</b>	<b>Year end</b>	<b>Rate</b>
Female	42	739	5.68%	116	739	15.70%
Up to 35	118	920	12.83%	112	920	12.17%
36-55	114	1,863	6.12%	207	1,863	11.11%
56+	19	491	3.87%	135	491	27.49%
Total	251	3,274	7.67%	454	3,274	13.87%
<b>2014</b>						
Male	124	2,481	5.00%	208	2,481	8.38%
Female	49	724	6.77%	70	724	9.67%
Up to 35	85	865	9.83%	92	865	10.64%
36-55	87	1,822	4.77%	113	1,822	6.20%
56+	1	518	0.19%	73	518	14.09%
Total	173	3,205	5.40%	278	3,205	8.67%
<b>2015</b>						
Male	147	2,485	5.92%	157	2,485	6.32%
Female	43	736	5.84%	55	736	7.47%
Up to 35	92	835	11.02%	66	835	7.90%
36-55	86	1,827	4.71%	76	1,827	4.16%
56+	12	559	2.15%	70	559	12.52%
Total	190	3,221	5.90%	212	3,221	6.58%
<b>2016</b>						
Male	43	2,210	1.95%	361	2,210	16.33%
Female	14	672	2.08%	104	672	15.48%
Up to 35	29	664	4.37%	126	664	18.98%
36-55	26	1,661	1.57%	209	1,661	12.58%
56+	2	557	0.36%	130	557	23.34%
Total	57	2,882	1.98%	465	2,882	16.13%
<b>2017</b>						
Male	57	1,973	2.89%	277	1,973	14.04%

	New hires	Year end	Rate	Turnover	Year end	Rate
Female	17	588	2.89%	94	588	15.99%
Up to 35	26	519	5.01%	77	519	14.84%
36-55	40	1,505	2.66%	164	1,505	10.90%
56+	8	510	1.57%	130	510	25.59%
Total	74	2,561	2.89%	371	2,561	14.49%

Figures are as of December 31 each year. For this indicator, we do not include temporary, casual or JV Inkai (Kazakhstan) employees. At the end of 2017, JV Inkai employed 641 people.

## What it means

2017 saw our overall turnover rate decline slightly over 2016, but it was still well above our historical average due to continued poor market conditions which resulted in additional workforce reductions.

## Definitions

*Turnover* – The number of employees who resign, are dismissed or retire while employed by Cameco each year.

Note:

We do not provide any regional breakdowns on this information at this time.

## MM4 - STRIKES AND LOCKOUTS (OVER ONE WEEK IN DURATION)

This indicator provides information on the number of strikes and lockouts at our unionized sites in any given year that are over one week in duration.

	2013	2014	2015	2016	2017
Number of strikes over 1 week	0	1	0	0	0
Number of lock-outs over 1 week	0	1	0	0	0

## What it means

There were no strikes or lockouts at any of our unionized operations in 2017, including Key Lake, McArthur River, Cameco Fuel Manufacturing or the Port Hope conversion facility.

## Definitions

*Strike* – A strike is a collective action by employees to stop or curtail work.

Section 1 (1) of the Canadian Labour Relations Act, 1995 defines a strike as a cessation of work, a refusal to work or to continue to work by employees in combination or in concert or in accordance with a common understanding, or a slow-down or other concerted activity on the part of employees designed to restrict or limit output.

*Lockout* – A lockout occurs when an employer closes a workplace, suspends work or refuses to continue employing a number of employees during a labour dispute.

Section 1 (1) of the Canadian Labour Relations Act, 1995 defines a lockout as the closing of a place of employment, a suspension of work or a refusal by an employer to continue to employ a number of employees, with a view to compel or induce the employees, or to aid another employer to compel or induce that employer's employees, to refrain from exercising any rights or privileges under this Act or to agree to provisions or changes in provisions respecting terms or conditions of employment or the rights, privileges or duties of the employer, an employers' organization, the trade union, or the employees.

## LA5 - HEALTH AND SAFETY COMMITTEES

This indicator shows the number and percentage of Cameco's workers who are represented by formal management-worker occupational health and safety (OHS) committees. These committees help monitor and advise on occupational health and safety programs.

	2013	2014	2015	2016	2017
Total workers	3,345	3,324	3,348	2,963	2,620
Workers represented by joint committees	3,345	3,324	3,348	2,963	2,620
% of workers represented in joint committees	100%	100%	100%	100%	100%

*Figures are as of December 31 each year. JV Inkai (Kazakhstan) workforce numbers (641 at the end of 2017) are not represented in the totals, although all employees there are represented by a formal OHS committee.*

### What it means

All of Cameco's employees in Canada, the US, Kazakhstan and Australia are represented by OHS committees. These committees operate at both the site level and at our corporate offices.

## LA6 - INJURY FREQUENCY, MISSED WORK

This indicator provides information about Cameco's rates of absenteeism, lost-time injuries (LTI) and work-related fatalities. For lost-time injuries and fatalities, we include both employees and contractors in our numbers. Minor updates to the LTI rate may be made to previous years on occasion if past injuries are reclassified as the worker's condition changes, e.g. a minor injury worsens, resulting in lost time at a later date.

We do not report absentee rates for Australia or Kazakhstan, nor do we report occupational disease rates. Absentee rates also do not include contractors to Cameco.

	2013	2014	2015	2016	2017
Absentee rate (%)	3.35	3.59	3.56	3.43	3.82
LTI rate (per 200,000)	0.19	0.17	0.22	0.23	0.12
# of fatalities	0	0	0	0	0

## What it means

Cameco has a strong safety culture and maintains a safe working environment for all of its employees. Our LTI rate continues to be very low, following a stable to somewhat declining trend. There are currently two operations, Blind River and Crow Butte that have in excess of 10 years without an LTI. Four additional operations have achieved at least one year LTI free.

## Definitions

*Lost-time injury* – A work-related injury requiring professional medical assessment and treatment, and where the employee is not able to return to work for their next scheduled shift. If there is uncertainty whether the lost-time injury is work related, Cameco sites must use the workers compensation decision to accept or deny the claim as the decision criteria. Regulatory acceptance of the lost-time injury claim requires the site to count the injury as work-related.

*Lost-time injury rate* – Based on the total number of lost-time injuries, you can compute the incidence rate using the following formula: lost-time injury rate = # of LTI cases x (200,000 hours/annual hours worked).

## Note

At this time, Cameco only reports this information at a global level. We also do not report our injury rate, occupational disease rate or our lost day rate at this time.

## LA11 - PERFORMANCE AND CAREER DEVELOPMENT REVIEWS (BY GENDER)

This indicator provides information about the percentage of employees who receive formal performance appraisals and career development reviews.

**In 2017, 100% of Cameco's non-unionized employees received formal performance appraisals and career development reviews. Cameco's unionized employees, who make up 35% of our male staff and 15% of our female staff, do not undergo formal performance reviews.**

*JV Inkai (Kazakhstan) employed 641 at the end of 2017, but is not included in this indicator.*

## What it means

In 2016, Cameco began transitioning to a new performance management program called "Core" which is guided by the following key principles: meaningful conversations around results and behaviours; alignment of employee priorities to corporate objectives; continual improvement; and feedback directed to employee's growth and development.

As of 2018 all non-unionized employees strive for a minimum of four conversations per year and are encouraged to have more meaningful conversations throughout the year based on continual feedback. This fosters strong relationships between supervisors and employees, thus as a company we are able to position ourselves towards realizing higher performance and productivity.

## Definitions

*Performance review* – A formal meeting between an employee and his or her supervisor to review and discuss the employee's performance against goals and expectations established at the start of the year by employees and supervisors.

## Note

JV Inkai (Kazakhstan) employed 641 at the end of 2017, but those employees are not included in this indicator.

## LA12 - WORKFORCE DIVERSITY

This indicator provides information on our workplace diversity, including the number and percentage of women, aboriginal peoples, visible minorities and persons with disabilities in our workforce.

	2013	2014	2015	2016	2017
# of employees	3,045	3,074	3,106	2,963	2,620
Women	705 23.15%	723 23.52%	733 23.60%	697 23.52%	602 22.98%
Aboriginal	722 23.71%	780 25.37%	792 25.50%	687 23.19%	590 22.52%
Visible minority	148 4.86%	140 4.55%	138 4.44%	127 4.29%	119 4.54%
Persons with disabilities	69 2.27%	63 2.05%	60 1.93%	51 1.72%	43 1.64%

*Figures are as of December 31 each year. This indicator only includes our Canadian operations, as other jurisdictions are not (at this time) required to collect or maintain diversity information on employees.*

## What it means

In 2017, we continued moving forward with our workforce diversity plan with greater focus on education and awareness. Highlights from 2017 included the launch of the “Expect Respect” program which provides employees access to resources for ensuring a respectful workplace, as well as a new training program for supervisors. We also launched a new internal webpage focused on diversity and inclusion.

## Definitions

*Aboriginal* – An aboriginal person is a North American Indian or a member of a First Nation, a Metis or Inuit. North

American Indians or members of a First Nation include status, treaty or registered Indians, as well as non-status and non-registered Indians.

*Visible minority* – A person declared as visible minority are persons, other than aboriginal persons, who are non-Caucasian in race or non-white in colour, regardless of birthplace.

*Persons with disabilities* – Persons who have a long-term or recurring physical, mental, sensory, psychiatric or learning impairment who:

- Consider themselves to be disadvantaged in employment by reason of that impairment
- Believe that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment
- Persons whose functional limitations owing to their impairment have been accommodated in their current job or workplace

## Social: Human Rights

### HR8 - DISPUTES RELATED TO INDIGENOUS RIGHTS

This indicator provides information about the total number of incidents registered through formal means related to indigenous rights.

	2013	2014	2015	2016	2017
# of incidents registered through formal means	1	0	0	0	0

### What it means

There were no disputes related to indigenous rights in 2017. Cameco has a long history working with indigenous groups wherever we operate, exemplified by our standing as one of Canada's largest industrial employers of indigenous peoples and the numerous mutually beneficial agreements we have with indigenous peoples in Australia and North America.

### Definitions

*Incident registered by formal means* – Formal allegation of a specific indigenous rights infringement caused by (or expected to result from) a Cameco project or activity. This allegation can take the form of:

- A complaint filed through a judicial proceeding
- A formal objection filed with the regulator
- Activities identified by Cameco's corporate responsibility team as failing to comply with Cameco's internal policy directives

### MM5 - PROXIMITY TO INDIGENOUS TERRITORIES

This indicator provides information about the number of Cameco sites on (or adjacent to) indigenous territories, as well as the percentage of formal agreements in relation to the overall number of our operating sites that are on or adjacent to an indigenous territory.

Sites on or adjacent to indigenous territories:

- Four sites in northern Saskatchewan on traditional territory (all of these operations have formal agreements in place with local indigenous communities)
- One operating Cameco site in Ontario adjacent to indigenous lands (this operation does not have a formal agreement in place)

## What it means

In northern Saskatchewan, Cameco has entered into five formal agreements with indigenous communities that cover the four sites we have on traditional territory. All of these agreements provide indigenous communities with workforce and business development programs, dedicated community engagement programs, community investment monies and mechanisms to collaborate around environmental stewardship.

Agreement	Participants	What is involved
Collaboration Agreements (CAs) (2012, 2013, 2016, 2017)	<ul style="list-style-type: none"> <li>• Lac La Ronge Indian Band</li> <li>• The communities of the Athabasca Basin (including Hatchet Lake, Black Lake and Fond du Lac Denesuline First Nations, along with four northern municipalities)</li> <li>• English River First Nation (EFRN)</li> <li>• the Northern Village of Pinehouse and the Metis Local situated there</li> <li>• Cameco, Orano (except for the Lac La Ronge Indian Band agreement)</li> </ul>	The agreements codify the relationships we've had in these communities for over 25 years and reaffirm our commitment as partners in employment, business development and community investment. They also provide a more predictable model of funding over the long term so communities will have greater ability to plan for community investment initiatives. The long-term nature of the agreements also means more opportunity in the form of jobs through business contracts defined in the agreements, and calls for an increase in workforce development initiatives such as scholarships and training opportunities.
Participation Agreement (2014)	<ul style="list-style-type: none"> <li>• Cree community of Southend, which is part of the Peter Ballantyne Cree Nation</li> <li>• Cameco</li> </ul>	Provides assistance to Southend to increase its business and workforce capacity and start to make more meaningful inroads into the mining industry.

Though not considered here as “formal agreements,” Cameco also has:

- Several trappers compensation agreements with trappers in northern Saskatchewan who continue to trap on or near our operating sites. These agreements encourage trappers to continue trapping, provide them with a yearly cash distribution, and, for some, an allotment of oil and/or gasoline
- A signed memorandum of understanding (MOU) with the Mississauga First Nation in relation to Cameco’s Blind River refinery in Ontario. The MOU commits the parties to work together towards mutual gain, and focuses primarily on socio-economic development projects related to youth, education, health and wellness, and community development

## Definitions

*Adjacent* – The tenure boundaries of an applicable Cameco operating site are physically contiguous with the boundaries of an indigenous territory.

*Indigenous territory* – can mean two things:

- Indigenous lands – Land in relation to which indigenous peoples hold or formally claim title or an equivalent interest (e.g. “reserve” land in Canada). This may include areas where ownership is claimed by multiple parties
- Traditional territory – Land on which indigenous peoples (a) historically exercised traditional activities (e.g. hunting, fishing, trapping or gathering) and (b) still do today

## Society

### SO1 - COMMUNITY ENGAGEMENT

This indicator provides information about the number and percentage of Cameco operations in Canada, the US and Kazakhstan that have local community engagement activities, impact assessments and development programs.

#### Community engagement activities

This includes various local community engagement activities that we carry out in relation to our ‘supportive communities’ measure of success. This would include activities such as community visits, community meetings, events, web materials, investments, print publications, presentations and others.

	2013	2014	2015	2016	2017
Number of operations with community engagement activities	10/10	10/10	10/10	10/10	10/10
% of operations with community engagement activities	100%	100%	100%	100%	100%

#### Impact assessments

These are socio-economic impact assessments conducted by operations either to meet requirements for environmental impact assessments and/or for standalone local economic impact assessments. They are conducted as required and span an



extended timeframe, often over several years.

	2013	2014	2015	2016	2017
Number of operations with impact assessments	9/10	9/10	9/10	9/10	9/10
% of operations with impact assessments	90%	90%	90%	90%	90%

## Development programs

Community development programs are formalized programs or agreements developed with local communities, groups and/or organizations, such as impact management agreements and/or memorandums of understanding. These are developed as required and may span an extended timeframe, often over several years.

	2013	2014	2015	2016	2017
Number of operations with development programs	8/10	8/10	8/10	8/10	8/10
% of operations with development programs	80%	80%	80%	80%	80%

## What it means

Community engagement is an important aspect of operational activities across our sites and is a central component of Cameco's five pillar strategy and all the agreements we have with indigenous communities.

2017 saw Cameco sign another collaboration agreement, it's fourth in northern Saskatchewan, with the Lac La Ronge Indian Band. Like our other CA's, this agreement confirms the continued support of our operations by the First Nation while providing the communities with annual community investment payments, priority hiring at the Key Lake and McArthur River operations, life of mine contracts, and continued preference for some community-owned businesses.

## MM6 - DISPUTES RELATED TO LAND USE AND CUSTOMARY RIGHTS

This indicator provides information about significant disputes relating to the land use and customary rights of local or indigenous peoples where we operate.

***Cameco was not involved in any significant disputes related to land use or customary rights with local communities and indigenous peoples during the reporting period.***

## What it means

We respect the rights of Indigenous peoples, and we invest considerable time in building relationships with local communities through our various engagement activities, including working with communities and traditional land users to understand local land use.

## Definitions

*Significant disputes* – Disputes that have been elevated to:

- A legal proceeding
- A formal objection filed with the applicable regulator
- A blockade or other form of civil disobedience
- The need to use a dispute resolution mechanism included in an agreement between the community and Cameco

## MM7 - USE OF GRIEVANCE MECHANISMS

This indicator looks at the extent to which local communities or indigenous groups used grievance mechanisms to resolve disputes relating to land use and customary rights, and the status or outcome of those processes.

***Cameco was not involved in any disputes related to land use or customary rights with local communities and indigenous peoples during the reporting period, and, as a result, no grievance mechanisms were engaged.***

### What it means

While local communities and indigenous peoples have several grievance mechanisms available to them, we have had no significant disputes relating to land use and customary rights where their use would have been appropriate.

## MM10 - OPERATIONS WITH PRELIMINARY DECOMMISSIONING PLANS

This indicator looks at the number of operations Cameco has with preliminary decommissioning plans, as well as the financial provisions attached to those plans for reclamation activities.

	Preliminary decommissioning plan	Total estimated future decommissioning and reclamation costs
Total	10 of 10 (100%)	\$1,052 million

This indicator does not include advanced non-operational sites (Kintyre, Yeelirrie, and Millennium), office structures, exploration activities, operations in which Cameco does not have operational control, or rented facilities that Cameco operates (Cobourg).

### What it means

All of Cameco's operations have preliminary decommissioning plans with adequate funding attached.

### Definitions

*Preliminary decommissioning plan* – Conceptual plan that describes the activities required after the operating life of a facility to reclaim the site to defined final end-state objectives. It includes an associated cost estimate for labour, materials, equipment, waste management, environmental assessment, monitoring and administration to carry out the plan. The amount of detail in these decommissioning plans depends on the mine life remaining. For example, a mine that has just a couple years of operations left will have a much more rigorous decommissioning plan than an operation that is not closing

for several decades. Regulators review our conceptual decommissioning plans on a regular basis. As a site approaches or goes into decommissioning, a final decommissioning plan is created, which usually requires regulatory approval. This can result in further regulatory process, as well as additional requirements, costs and financial assurances.

## S07 - COMPETITION LAW COMPLIANCE

This indicator provides information about legal actions initiated against Cameco under national or international law designed to regulate anti-competitive behaviour and address anti-trust or monopoly practices.

This includes information about pending or completed actions and the outcomes of pending or completed actions, including any decisions or judgments.

*There were no legal actions initiated against Cameco related to anti-competitive behaviour during the reporting period.*

### What it means

Cameco is committed to compliance with competition and anti-trust laws everywhere we operate.

## S08 - SIGNIFICANT FINES (NON-COMPLIANCE)

This indicator provides information about administrative or judicial fines and non-monetary sanctions levied against Cameco for failure to comply with laws and regulations, including:

- National, sub-national, regional and local regulations
- International declarations, conventions or treaties

This includes the total monetary value of significant fines and the number of non-monetary sanctions. It does not include fines or non-monetary sanctions related to environmental or labelling regulations, transportation matters and fines or sanctions we are in the process of appealing.

	2013	2014	2015	2016	2017
# of sanctions	0	0	0	0	0
Value of significant fines (USD)	\$659,646	0	0	\$1,251,908	0
# of significant fines	2	0	0	2	0

### What it means

Cameco received no significant administrative or judicial fines and non-monetary sanctions, which are not currently under appeal, for failure to comply with laws and regulations in 2017.

### Definitions

*Significant fine* – Fines that exceed CDN \$100,000 paid by Cameco or a controlled subsidiary in Canada, the US, Europe or Kazakhstan to a government authority for non-compliance with government laws or regulations, other than environmental laws and regulations.

*Non-monetary sanction* – An administrative or judicial sanction levied against Cameco or a controlled subsidiary for non-compliance with laws and regulations that results in either (i) a Level IV or V incident under Cameco’s corrective action process standard; or (ii) a criminal conviction for Cameco or one of its controlled subsidiaries.

## Product Responsibility

### PR4 - LABELLING NON-COMPLIANCE

This indicator provides information about Cameco’s compliance with dangerous goods labelling requirements defined by transport regulations and reported to regulatory agencies in Canada, the U.S., Australia and Kazakhstan.

	2013	2014	2015	2016	2017
# of incidents reported to or identified by regulatory agencies (total)	4	5	0	3	5
Resulting in a fine	0	0	0	0	0
Resulting in a warning	2	2	0	3	5

### What it means

2017 saw five labelling non-compliances, all of which resulted in warnings, but no fines, from regulators. They were:

- Transport Canada inspection at the Port of Montreal – the words “Toxic by Inhalation” were missing on the ISO portable tanks
- Transport Canada inspection at the Port of Montreal – missing specification (identification) plate on the AHF intermodal
- USNRC Inspection – barium sludge was not labelled correctly for transport
- Transport Canada Inspection at Cigar Lake – placard displayed on trailer was not square on points
- Transport Canada inspection at Rabbit Lake – danger placards used for transport of more than 1000 kg of the same class 2 material

### Definitions

*Labeling non-compliance* – The types of information that must be correctly presented on our product labels are:

- Radioactive category
- Subsidiary hazard(s) – *when applicable*
- Proper shipping name
- UN number – a number issued by the United Nations which is used to quickly identify dangerous substances for

emergency response, handling and storage during transport

- VRI code (international vehicle registration code – *when applicable*)
- Name of consignor/consignee
- Type and weight of package
- Placards

## PR9 - SANCTIONS (PRODUCT NON-COMPLIANCE)

This indicator provides information about monetary fines imposed by regulatory agencies for non-compliance with laws and regulations related to providing products and services (transportation and customs related fines) in Canada, the US, Australia and Kazakhstan.

### What it means

In 2017 Cameco received a Notice of Penalty Assessment from the Canada Border Services Agency (CBSA) in regards to incorrect information provided on the export declaration. Value of the penalty was \$150.00 CAD.

### Definitions

*Provision of products* – Transportation of products, on or off-site.

## Cameco Indicators

### CA1 - POLLING (PUBLIC SUPPORT)

This indicator provides information about the level of public support for Cameco's operations in Saskatchewan, northern Saskatchewan, Port Hope (Ontario) and the U.S.

	2013	2014	2015	2016	2017
<b>Public support %</b>					
Saskatchewan	79	79	86	81	82
Northern SK	76	79	81	77	73
Ontario	87	84	88	89	86
Nebraska	69	70	62	73	N/A
Wyoming	89	87	91	88	N/A

### What it means

The majority of Cameco's operations continue to see strong support from the communities where we operate despite the

impacts of a depressed uranium market. Due to the continued shutdown of our U.S. operations, we did not conduct polling in those areas in 2017.

## CA2 - AVERAGE RADIATION DOSE TO WORKERS

This indicator provides information about the average radiation dose to workers at our mining and milling and fuel services divisions in Saskatchewan, Ontario, Kazakhstan and the US.

	2013	2014	2015	2016	2017
Avg. radiation dose (mSv)	0.73	0.85	0.86	0.74	0.63

### What it means

Our average radiation dose to workers remains consistently low, at under 1 millisievert (mSv). By comparison, typical natural background radiation doses to the public are 2–3 mSv per year. Cameco rates are far below the maximum annual dose limit of 50 mSv and 100 mSv over a five-year dosimetry block permitted by regulators (note that the US sites only have an annual limit, and no long-term limit in their regulations). Doses for 2017 by division and corporately were somewhat lower than the historical trends. The reduction in doses was primarily due to a continued reduction in production across the operating sites.

### Note

The values in the table represent the arithmetic average dose of all employees and contractors at our operations. Another metric used in our annual regulatory report is the full-time equivalent average, which normalizes the doses to a standard work year of 2,000 hours. Both are valid metrics.