



**2019 GRI and SASB
Disclosure Report**



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Our Reporting Strategy

CF Industries is committed to publishing an annual sustainability report to document our environmental, social and governance (ESG) strategy and performance. For the first time, we are publishing our sustainability report in tandem with our financial reports, reflecting our internal emphasis on both reporting dimensions. In addition to reporting to the Global Reporting Initiative (GRI) on a Comprehensive basis, we are also reporting to the Sustainability Accounting Standards Board (SASB) framework for the chemicals industry this year.

ACCOUNTING METRICS

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE	RESPONSE/REFERENCE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO ₂ -e, Percentage (%)	RT-CH-110a.1	GRI 305: Emissions, 305-1: Direct (Scope 1) GHG Emissions
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	RT-CH-110a.2	GRI 302: Energy, Management Approach
Air Quality	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Quantitative	Metric tons (t)	RT-CH-120a.1	GRI 305: Emissions, 305-7: Nitrogen oxides (NOX), sulfur oxides (SOX) and other significant air emissions
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CH-130a.1	GRI 302: Energy, 302-1: Energy consumption within the organization
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m ³), Percentage (%)	RT-CH-140a.1	GRI 303: Water and Effluents, 303-3: Water withdrawal; 303-5: Water consumption
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	RT-CH-140a.2	GRI 307-1: Non-compliance with environmental laws and regulations
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	RT-CH-140a.3	GRI 303: Water and Effluents, Management Approach
Hazardous Waste Management	Amount of hazardous waste generated, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	RT-CH-150a.1	GRI 306: Effluents and Waste, 306-2: Waste by type and disposal method
Community Relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	Discussion and Analysis	n/a	RT-CH-210a.1	GRI 202: Market Presence, Management Approach GRI 413: Community, 413-2: Operations with significant actual and potential negative impacts on local communities
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	Rate	RT-CH-320a.1	GRI 403: Occupational Health and Safety, 403-9: Work-related injuries
	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	Discussion and Analysis	n/a	RT-CH-320a.2	GRI 403: Occupational Health and Safety, 403-3: Occupational health services
Product Design for Use-phase Efficiency	Revenue from products designed for use-phase resource efficiency	Quantitative	Reporting currency	RT-CH-410a.1	CF derives approximately 7% of its revenue from the sale of Diesel Exhaust Fluid (DEF) and urea liquor and ammonia which are used for emission abatement purposes.
Safety & Environmental Stewardship of Chemicals	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	Quantitative	Percentage (%) by revenue, Percentage (%)	RT-CH-410b.1	(1) 89% (2) 100% of products have undergone a hazard assessment.
	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	Discussion and Analysis	n/a	RT-CH-410b.2	GRI 416: Customer Health and Safety, Management Approach
Genetically Modified Organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Quantitative	Percentage (%) by revenue	RT-CH-410c.1	0% - CF does not manufacture GMOs.
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and Analysis	n/a	RT-CH-530a.1	GRI 307: Environmental Compliance, Management Approach GRI 419: Socioeconomic Compliance, Management Approach
Operational Safety, Emergency Preparedness & Response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Quantitative	Number, Rate	RT-CH-540a.1	CF does not currently disclose this metric.
	Number of transport incidents	Quantitative	Number	RT-CH-540a.2	Number of incidents: 3 Railroads and regulators have zero tolerance for a non-accident release (NAR) particularly when dealing with hazardous materials. Railroads, in an effort to encourage greater visibility for safety, give awards to shippers that have successfully gone a calendar year without experiencing a NAR on their line. CF received the Association of American Railroads (AAR) Grand Slam Award in 2019. This award requires having received four individual railroad awards during the same calendar year.
Activity Metric	Production by reportable segment	Quantitative	Cubic meters (m ³) and/or metric tons (t)	RT-CH-000.A	GRI 102-7: Scale of the organization



General Disclosures

102 Organizational Profile

102-1

Report the name of the organization.

CF Industries Holdings, Inc.

102-2

Activities, brands, products and services

See 2019 Form 10-K, pages 1-4

102-3

Location of headquarters

Deerfield, Illinois

102-4

Location of operations

Nitrogen manufacturing facilities:

- Billingham, United Kingdom
- Courtright, Ontario
- Donaldsonville, Louisiana
- Ince, United Kingdom
- Medicine Hat, Alberta
- Point Lisas, Trinidad (50 percent interest)
- Port Neal, Iowa
- Verdigris, Oklahoma
- Woodward, Oklahoma
- Yazoo City, Mississippi

CF-owned storage terminals – 19 locations in the U.S. and three in Canada

102-5

Ownership and legal form

A publicly held U.S. corporation.

102-6

Markets served

The principal customers for our nitrogen fertilizer and other nitrogen products are cooperatives, independent fertilizer distributors, farmers and industrial users. Our largest customer base is in the U.S., Canada, Europe and Latin America. Our markets are global and intensely competitive, based primarily on delivered price and, to a lesser extent, on customer service and product quality. See also 2019 Form 10-K, pages 7 and 113.

102-7

Scale of the organization

SASB Activity Metric: Production by Reportable Segment, Code: RT-CH-000.A

See 2019 Form 10-K:

- Net sales and volume and total operations: Pages 3-6
 - Net earnings: Pages 68-69
- Employees: Page 10

102-8

Information on employees and other workers

TOPIC	METRIC	UNIT	2019 ¹	2018	2017
People					
EMPLOYMENT	Total Employees	Employees	2,987	3,036	3,066
	Employees by region:				
	U.S.	Employees	1,940	2,012	1,989
	Canada	Employees	435	416	422
	U.K.	Employees	612	608	655
	Employees by contract type:				
	Full time	Employees	2,925	2,920	2,913
	Part Time	Employees	20	85	105
	Temporary	Employees	42	31	48
	Employees covered by collective bargaining agreements ²	Percentage	17	17	-
	Entry level wage relative to local minimum wage (U.S.) ³	Percentage	288	279	-
Entry level wage relative to local minimum wage (Canada) ³	Percentage	292	234	-	
DIVERSITY & INCLUSION	Employees by gender:				
	Male	Employees	2,577	2,616	2,643
	Female	Employees	410	420	423
TENURE	Employees by tenure:				
	0-5 years	Employees	1,347	1,489	1,539
	6-10 years	Employees	690	568	532
	11-20 years	Employees	442	432	410
	21+ years	Employees	508	547	585

¹All data in this section is as of December 31 of the reporting year.

²See also GRI Disclosure 102-41 – Collective bargaining agreements.

³See also GRI Disclosure 202-1 – Ratios of standard entry level wage by gender compared to local minimum wage.

Description of Supply Chain

CF's supply chain includes local, regional and global partners from whom we purchase products and services including natural gas, transportation, utilities, maintenance services and capital equipment. The Procurement and Material Control organization within CF manages the spend that supports the manufacturing sites, distribution facilities and corporate offices exclusive of feedstock and customer logistics. This spend is conducted with 5,000 plus suppliers across a number of areas, including but not limited to: capital equipment, maintenance services, chemicals, catalyst, spare parts, utilities, professional services, information technology, travel, engineering services and environmental services.

The vast majority of the supply base is located in North America and Western Europe. The extended supply chain is exponentially greater than the number of suppliers CF utilizes. The spend varies from year-to-year but generally is in the range of \$1 billion plus per year. In addition, the Procurement and Material Control team manages warehouses and the corresponding inventory of spare parts to support manufacturing operations.

CF's primary raw material, natural gas, is delivered to its nine production locations by pipeline. North American operations have a dedicated natural gas management organization that procures natural gas for delivery to the plants, manages price risk through physical contracts and financial derivatives, and manages natural gas transportation contracts to deliver gas from nearby hubs to the plants. At CF Fertilisers UK, these functions are embedded within the supply organization. In total, gas is procured from approximately 25 counterparties, all of whom are either natural gas production and exploration companies or major natural gas marketing companies, using a mix of term contracts and monthly spot purchases. New suppliers are added from time to time, but the supply base tends to change slowly. The cost of natural gas procured varies with fertilizer production and the market price of gas and has averaged about \$1 billion per year in recent years.

Our transportation organization manages outbound freight services, leasing of transportation equipment and terminal operations, and related services, for which the company spends approximately \$500 million per year. Products are shipped from CF's plants, terminals and leased facilities by river barge, rail, truck, ocean-going vessel and pipeline. In some cases, our customers arrange truck or marine transportation from our facilities to their own.

Significant changes to the organization and its supply chain

In September 2019, Magellan Midstream closed the southern portion of its ammonia pipeline system, which has required the company to transport more of the net ammonia produced at its Verdigris, Oklahoma, complex by truck or river barge. Magellan has announced the closure of the remainder of this system in the first quarter of 2020, which will require the Company's Port Neal, Iowa, complex to transport more of its net ammonia production by truck and two of its terminals to receive ammonia the same way.

Precautionary principle or approach

CF supports a precautionary approach through our comprehensive risk management program and environmental, health, safety, and security programs.

See 2020 Proxy Statement, "Board Oversight of Strategy and Risk Management," pages 26-28

See also CF's [Environmental, Health, Safety, and Security Policy](#)

External initiatives

Global Reporting Initiative

Signatory to the UN Global Compact

Sustainability Accounting Standards Board

United Nations (UN) Sustainable Development Goals – See 2019 Corporate Sustainability Report

102-13

Membership of associations

4R Plus / The Nature Conservancy
Agricultural Industries Confederation
Agricultural Retailers Association
American Fuel and Petrochemical Manufacturers
American Institute of Chemical Engineers
Center for Chemical Process Safety
Chemical Industry Council of Illinois
Fertilizer Canada
Field to Market
Industrial Energy Consumers of America
International Fertilizer Association
Louisiana Chemical Association
National Association for EHS&S Management
National Association of Manufacturers
National Safety Council
North East Process Industries Cluster
One Acre Fund
Resources for the Future
ResponsibleAg
The Fertilizer Institute
The Business Roundtable
U.K. Chemical Industries Association
Waterways Council, Inc.

102 Strategy

102-14

Statement from senior decision-maker

See 2019 Corporate Sustainability Report, pages 2-3

102-15

Key impacts, risks and opportunities

See 2019 Annual Report, pages 3-5
See 2019 Form 10-K, pages 11-25

102 Ethics and Integrity

102-16

Values, principles, standards and norms of behavior

Our Values

<https://www.cfindustries.com/who-we-are/our-values>

Code of Corporate Conduct

<https://www.cfindustries.com/globalassets/cf-industries/media/documents/reports/codeofconduct.pdf>

We also have a number of other policies addressing our values, principles, standards and norms of behavior at

<https://www.cfindustries.com/sustainability-at-cf-industries/policies>

102-17

Mechanisms for advice and concerns about ethics

See CF's [Code of Corporate Conduct](#), pages 2-3

102 Governance

102-18

Governance structure

See 2020 Proxy Statement, “Proposal 1: Election of Directors” (pages 10-16) and “Corporate Governance” (pages 23-31)
See CF’s [Corporate Governance Guidelines](#)

102-19

Delegating authority

At the corporate level, our Vice President of Environmental, Health, Safety and Quality (EHS) reports to the Senior Vice President of Manufacturing and Distribution, who provides briefings to CF Board of Directors at every meeting. Our internal councils also help develop and communicate environmental, occupational safety, process safety, security and emergency services best practices among our manufacturing and distribution facilities. The Vice President of EHS is also supported by a team of auditors who conduct audits to assess EHS risk and ensure compliance with regulations and CF standards.

Most of our philanthropic and social outreach initiatives are locally based. This enables each facility to address the unique needs and opportunities in their respective communities.

102-20

Executive-level responsibility for economic, environmental and social topics

See GRI Disclosure 102-19 – Delegating authority

102-21

Consulting stakeholders on economic, environmental and social topics

We believe in fostering open communication with all of our stakeholders, including investors, customers, employees, public officials, farmers and our communities. We engage with each group through appropriate channels and on issues that matter most to them.

We believe that building positive relationships with our shareholders is critical to CF Industries’ success. We value the views of, and regularly communicate with, our shareholders on a variety of topics, such as our financial performance, corporate governance, executive compensation, and related matters. Management shares the feedback received from shareholders with the Board. Our chairman, our committee chairs, and other members of the Board may also be available to participate in meetings with shareholders as appropriate. Our engagement activities have resulted in valuable feedback that has contributed to our decision-making with respect to these matters.

We conduct shareholder outreach campaigns in the spring and in the fall. Our engagements in the spring are primarily focused on ballot items on which shareholders will vote at our annual meeting. Our engagements in the fall generally focus on voting outcomes from our prior annual meeting – including direct shareholder feedback on how they voted on ballot items – as well as potential corporate governance or executive compensation changes the Board and its committees are considering. The fall engagement also presents an opportunity to discuss with shareholders developments in their methodologies and analyses and potential future areas of focus.

See 2020 Proxy Statement, “Proxy Statement Summary – Shareholder Engagement,” page 7

102-22

Composition of the highest governance body and its committees

See 2020 Proxy Statement, “Corporate Governance – Director Independence,” page 23; “Corporate Governance – Leadership of the Board,” page 23; “Corporate Governance – Committees of the Board,” page 25

102-23

Chair of the highest governance body

The Board has determined that the most effective leadership structure is to maintain an independent Board chair role separate from the chief executive officer.

See 2020 Proxy Statement, “Corporate Governance – Leadership of the Board,” page 23

102-24

Nominating and selecting the highest governance body

See 2020 Proxy Statement, “Proposal 1: Election of Directors – Director Nominees,” page 10; “Proposal 1: Election of Directors – Director Succession Planning and Nomination Process,” page 10; “Proposal 1: Election of Directors – Criteria for Board Membership,” page 13

102-25

Conflicts of interest

The Board has made an affirmative declaration that none of our 11 non-employee directors have a material relationship with CF Industries or any of its subsidiaries (other than being a director and stockholder of CF Industries) and, accordingly, meet the applicable requirements for “independence” set forth in the NYSE’s listing standards. Our Code of Corporate Conduct provides guidance on examples of conflicts of interest, expectations for all levels of the organization and related persons and how to disclose potential conflicts.

See 2020 Proxy Statement, “Corporate Governance – Director Independence,” page 23 and “Policy Regarding Related Person Transactions,” page 37

See also CF’s [Code of Corporate Conduct](#), pages 9-11

102-26

Role of highest governance body in setting purpose, values and strategy

See 2020 Proxy Statement, “Proxy Statement Summary – Our Strategy,” page 2; Corporate Governance – Board Oversight of Strategy and Risk Management,” page 26; “Corporate Governance – Corporate Responsibility and Sustainability,” page 29

102-27

Collective knowledge of highest governance body

See 2020 Proxy Statement, “Proposal 1: Election of Directors – Criteria for Board Membership,” page 13; “Proposal 1: Election of Directors – Summary of Director Core Competencies,” page 15

102-28

Evaluating the highest governance body’s performance

See 2020 Proxy Statement, “Corporate Governance – Leadership of the Board – Annual Board and Committee Self-Evaluations and Director Peer Evaluations,” page 24

102-29

Identifying and managing economic, environmental and social impacts

See 2020 Proxy Statement, “Corporate Governance – Board Oversight of Strategy and Risk Management,” page 26; “Corporate Governance – Corporate Responsibility and Sustainability,” page 29

102-30

Effectiveness of risk management processes

Management of risk, including process safety and environmental risk, extends from our plant-level managers to the CF Board of Directors. A corporate risk management group leads an annual assessment process that includes extensive research and scoring methodology to identify and rank risks. Material risks are assigned to members of CF's senior management team, who are responsible for risk monitoring and mitigation. The Board of Directors focuses on the adequacy of our risk management process and the effectiveness of our overall risk management program.

See 2020 Proxy Statement, "Corporate Governance – Board Oversight of Strategy and Risk Management," page 26; "Corporate Governance – Corporate Responsibility and Sustainability," page 29

102-31

Review of economic, environmental and social topics

See GRI Disclosure 102-26 – Role of highest governance body in setting purpose, values and strategy
See GRI Disclosure 102-27 – Collective knowledge of highest governance body

102-32

Highest governance body's role in sustainability reporting

The Board of Directors reviews the sustainability report so that directors may provide input.

102-33

Communicating critical concerns

See 2020 Proxy Statement, "Corporate Governance – Communications with Directors," page 29 and "Corporate Governance – Shareholder Engagement," page 29

102-34

Nature and total number of critical concerns communicated

CF Industries treats this as confidential information.

102-35

Remuneration policies

For directors, see 2020 Proxy Statement, "Corporate Governance – Director Compensation," page 32.

For named executive officers, see 2020 Proxy Statement, "Compensation Discussion and Analysis," pages 42-77, "Compensation and Management Development Committee Report," page 78, and "Executive Compensation," pages 79-95.

102-36

Process for determining remuneration

For directors, see 2020 Proxy Statement, "Corporate Governance – Director Compensation," page 32.

For named executive officers, see 2020 Proxy Statement, "Compensation Discussion and Analysis," pages 42-77, "Compensation and Management Development Committee Report," page 78, and "Executive Compensation," pages 79-95.

102-37

Stakeholders' involvement in remuneration

See 2020 Proxy Statement, "Compensation Discussion and Analysis – Compensation Program Overview – Shareholder Engagement," page 52

Annual total compensation ratio

The following table sets forth the ratio of the annual total compensation for the highest-paid individual in each country of our significant operations to the annual total compensation for the median employee in the same country for the reporting year:

Location	Annual Compensation Ratio
U.S.	91 to 1
Canada	5 to 1
U.K.	23 to 1

Employee annual total compensation, for purposes of this calculation, includes base salary, actual bonus paid and total target fair value of all annual long-term incentives granted for the reporting period. Due to the variability of the annual earnings for our hourly workforce and our performance-based compensation, the annual total compensation ratios can differ significantly from year-to-year.

In addition, pursuant to a mandate of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC adopted a rule requiring annual disclosure of the relationship of our overall company median employee's annual total compensation to the annual total compensation of our CEO. Based upon the calculation of compensation for both the CEO and our overall company median employee in accordance with SEC rules, we estimated that our CEO's annual total compensation for the reporting year was approximately 73 times that of our median employee. Full disclosure of the SEC required CEO annual total compensation ratio to the median employee pay can be found in the 2020 Proxy Statement, "Executive Compensation – CEO Pay Ratio," page 94.

Percentage increase in annual total compensation ratio

The following table sets forth the ratio of the percentage increase in annual total compensation for the highest-paid individual in each country of our significant operations to the percentage increase in annual total compensation for the median employee in the same country for the reporting year:

Location	Annual Increase Ratio
U.S.	57 to 1
Canada	1 to 2
U.K.	1 to 160

Employee annual total compensation, for purposes of this calculation, includes base salary, actual bonus paid and total target fair value of all annual long-term incentives from the prior and current reporting periods. Due to the variability of the annual earnings for our hourly workforce and our performance-based compensation, the annual total compensation ratios can differ significantly from year-to-year.

In addition, we estimate the percentage increase in our CEO's annual total compensation for the reporting year calculated in accordance with SEC rules was 75 times that of our overall company median employee. Full disclosure of the annual total compensation for our CEO can be found in the 2020 Proxy Statement, "Executive Compensation," page 79.

102 Stakeholder Engagement

List of stakeholder groups

We believe in fostering open communication with all of our stakeholders, including investors, customers, employees, farmers, policymakers, government officials, NGOs, suppliers and our communities. We engage with each group through appropriate channels and on issues that matter most to them.

102-41

Collective bargaining agreements

Approximately 17 percent of CF's total workforce were covered by a collective bargaining agreement during the reporting period. Collective bargaining agreements only cover U.K. employees.

102-42

Identifying and selecting stakeholders

We identify relevant stakeholders as those individuals and/or groups that our people, plants, and products impact directly. We also take into consideration the entire lifecycle of our products even though we may not be directly responsible for impacts in the downstream value chain.

102-43

Approach to stakeholder engagement

See GRI Disclosure 102-40 – List of stakeholder groups

102-44

Key topics and concerns raised

Stakeholder	Key Topics and Concerns
Investors	Business performance, commodity market trends, regulatory risks, environmental, social, and governance (ESG) matters
Farmers	Farm profitability, crop yield, soil quality, conservation
Employees	Operational safety, business stability, compensation and benefits, professional training
Customers	Product quality, product distribution, logistics capabilities
Community Members	Business stability, job creation, community safety, local economic development, environmental impacts

102 Reporting Practices

102-45

Entities included in the consolidated financial statements

See 2019 Form 10-K, Section 5: EX-21 (Exhibit 21)

102-46

Defining report content and topic boundaries

The content of this report has been compiled based upon a review and analysis of industry material issues; benchmarking against industry peers; engaging regularly with our stakeholders; and surveying GRI Standards topics. Reporting boundaries are all wholly owned and operated operations.

102-47

List of material topics

- Community Performance
- Employee Health & Safety
- Energy, Emissions & Climate Change
- Environmental Compliance
- Environmental Impacts of Products
- Ethics
- Food Security
- Local Economic Impact
- Public Policy
- Training & Development

102-48

Restatements of information

Restatements are footnoted throughout this report as they appear.

102-49	Changes in reporting
There have been no significant changes to material topics since the last reporting period.	
102-50	Reporting period
The year ending December 31, 2019.	
102-51	Date of most recent report
2018	
102-52	Reporting cycle
Annual	
102-53	Contact point for questions regarding the report
Corp_communications@cfindustries.com	
102-54	Claims of reporting in accordance with the GRI Standards
This report has been prepared in accordance with GRI Standards: Comprehensive Option.	
102-55	GRI content index
This document is organized by GRI disclosures and serves as our GRI Content Index.	
102-56	External assurance
We do not seek external assurance for this report.	



Topic-Specific Standards

Economic

201 Economic Performance

103-1,2,3

Management Approach

See 2019 Annual Report, pages 1-3

See 2019 Form 10-K, pages 30-34

201-1

Direct economic value generated and distributed

See 2019 Annual Report, pages 1-4

See 2019 Form 10-K, page 3

201-2

Financial implications and other risks and opportunities due to climate change

See 2019 Corporate Sustainability Report, pages 6-9, 13

See 2019 Form 10-K, pages 8-10 and 20-21

201-3

Defined benefit plan obligations and other retirement plans

CF employees are eligible to participate in a pension plan as well as a 401(k) or equivalent plan. We maintain five funded pension plans, consisting of three in North America (one U.S. plan and two Canadian plans) and two in the U.K. One of our Canadian plans is closed to new employees, and the two U.K. plans are closed to new employees and future accruals. The portion of the U.S. plan that is open to new employees is a cash balance plan, which provides benefits based on years of service and interest credits. Our current funding levels as of the December 31st reporting year are 94.8 percent for North America and 70 percent for U.K. In addition to our qualified defined benefit pension plans, we maintain certain nonqualified supplemental pension plans for highly compensated employees as defined under federal law.

We also provide group medical insurance benefits to certain retirees in North America. The specific medical benefits provided to retirees vary by group and location.

CF Industries complies with tax law and practice in all of the territories in which we operate. Compliance means paying the right amount of tax, in the right place, at the right time, and involves disclosing all relevant facts and circumstances to the tax authorities and claiming reliefs and incentives where available.

In structuring our commercial activities, we will consider – among other factors – the tax laws of the countries within which we operate with a view to maximizing value on a sustainable basis for our shareholders. Any tax planning undertaken will have commercial and economic substance and will have regard to the potential impact on our reputation and broader goals. We will not undertake planning that is contrived or artificial.

Given the scale of our business and volume of tax obligations, risks will inevitably arise from time to time in relation to the interpretation of tax law and nature of our compliance arrangements. We proactively seek to identify, evaluate, manage and monitor these risks with the objective of minimizing tax risk. Where there is significant uncertainty or complexity in relation to a risk, external advice may be sought.

We engage with tax authorities, with honesty, integrity, respect and fairness and in a spirit of cooperative compliance. We strive to be open with tax authorities, to provide prompt and up-to-date information about how we manage our tax responsibilities, and to ensure our relationship with tax authorities is efficient and effective for both parties.

Taxes Paid or Accrued (USD in millions)

U.S. Federal Income Taxes Accrued	115.7 ^{1,2}
U.S. State Income Taxes Accrued	(10.8) ^{1,2}
Foreign Income Taxes Accrued	21.0 ^{1,2,3}
U.S. Indirect Taxes Paid	38.5 ⁴
Total	164.4

¹All income tax amounts represent amount accrued during the reporting period.

²Cash tax payments differ from accrued taxes based on the income tax rules in effect in each jurisdiction in which we operate.

³Foreign income taxes translated using U.S. dollar foreign exchange rate in effect for the appropriate period.

⁴Indirect taxes include property taxes, fertilizer tonnage taxes and use taxes paid by the company in that particular year.

Government Incentives Received (USD in millions)

Sales Tax Rebates	2.1 ⁵
Property Tax Rebates & Abatements	1.3 ⁶
Job Training Grants	39.3 ⁷
Total	42.7

⁵Sales tax rebates reflect refunds of sales tax paid on capital projects pursuant to an agreement with the appropriate State authority.

⁶Property tax rebates represent abatements or refunds of property taxes associated with capital expansion projects.

⁷Job training grants primarily represent job training payments received from governmental agencies in connection with qualified expansion activities.

In addition, during the reporting period, CF Fertilisers UK received compensation from the U.K. government in the amount of £2.8 million which included compensation for indirect costs of the European Union (EU) Emissions Trading System, the Carbon Price Support Mechanism, and the small-scale Feed-in Tariff.

202 Market Presence

103-1,2,3

Management Approach

SASB Topic: Community Relations, Code: RT-CH-210a.1

Many of the communities in which we operate are relatively small and in rural locations, where we are often the largest employer and contributor to the local tax base. For plants in operation, we provide well-paid positions with salaries that are often well above the standard salaries in the area. As an example, starting salaries at our nitrogen complexes average \$55,000 per year and increase, with full certification, to \$85,000. For every new direct position created, we estimate seven indirect jobs are created in the local community. When we undertake major maintenance projects, such as turnarounds, or expand a nitrogen complex, we create additional significant positive economic impacts.

Our in-kind and monetary donations and employee volunteerism help develop young people and strengthen communities where we operate. Our community giving strategy is locally-focused and designed to benefit the 30-plus North American and U.K. communities where our manufacturing and distribution facilities are located. The nature of our support depends on the needs of each community and falls within three strategic focus areas of education, safety and community development.

We also take into consideration the safety needs of communities immediately surrounding our facilities. We work closely with emergency responders and other local officials to develop detailed emergency response plans that extend beyond our physical plants. Our community safety activities include sponsoring hazardous material safety training; donating equipment for local emergency responders; and hosting regular community open houses with facility tours and safety presentations.

202-1

Ratios of standard entry level wage by gender compared to local minimum wage

In the U.S. and Canada, CF offers competitive compensation and benefits at each of its locations of operation. As of the December 31st reporting year, the standard entry-level wage range is higher than the local minimum wage for both locations presented – shown below (in local currency).

CF Industries Local Minimum Wage Compared to Local Minimum Wage			
Significant Operations	Local Minimum Wage	CF Entry-Level Wages	CCF Entry-Level Wages Relative to Local Minimum Wage
U.S. Range/hr. (USD)	\$7.25 – \$14.00	\$20.87 – \$26.58 (hourly) \$20.62 – \$26.89 (salary)	288%
Canada Range/hr. (CAD)	\$11.32 – \$15.00	\$33.07 – \$35.14 (hourly) \$27.53 – \$37.30 (salary)	292%

CF does not set entry level wages based on gender.

In the U.K., the apprentices are the only employees paid minimum wage.

202-2

Proportion of senior management hired from the local community

As a matter of practice, we will “hire from within wherever possible.” For senior leader roles, if no internal candidates are identified, a search will be conducted externally to find the best candidate for the leader role. The hire may or may not come from one of the communities where we have a local presence. Candidates may be supported with relocation assistance. We define local as within a reasonable travel distance to the site.

In the U.S. and Canada, senior leaders are defined as those individuals who are employed at the following levels within CF: Director, Vice President, Senior Vice President, and General Manager. These employees represent about 3 percent of our total workforce. During the reporting period, our operations hired ten senior leaders – four of whom were hired externally and six of whom came from local communities.

In the U.K., senior leaders are defined as those individuals who are members of our senior leadership team (SLT). There are ten members of the SLT out of a total workforce of 612, which represents less than 1.63 percent of our total workforce. During the reporting period, we promoted one senior leader via internal progression and increased the senior leadership team by one person including another function to be represented at that level. Both new senior leaders are based in the local community.

203 Indirect Economic Impacts

103-1,2,3

Management Approach

See GRI Disclosure 202 – Market Presence – Management Approach

203-1

Infrastructure investments and services supported

During the reporting period, charitable contributions were approximately \$1.57 million. CF donated to initiatives in the following areas:

- Education
- Health, safety and welfare
- Emergency response
- Local community organizations

Our charitable contributions are driven by the needs of the local communities where we operate.

203-2

Significant indirect economic impacts

See GRI Disclosure 203-1 – Infrastructure investments and services supported

204 Procurement Practices

103-1,2,3

Management Approach

We ask all suppliers to abide by CF's Third Party Code of Conduct as part of the purchase agreements. Pre-screening of our suppliers is critical to maintaining our EHS performance and culture. CF works with third parties in the U.S., Canada and the U.K. to screen assist CF with supplier pre-screening and evaluation of key supplier EHS programs. All suppliers that come onto CF sites are trained on site-specific expectations and held to the same EHS standards as we hold ourselves.

204-1

Proportion of spending on local suppliers

For the purposes of this indicator, we define local suppliers as:

- Spend is made with suppliers within a 50-mile / 81-kilometer radius from the site based on postal code;
- Utilities serving the facility are within the 50-mile / 81-kilometer radius;
- For suppliers that have multiple offices or non-local mailboxes (e.g., Siemens), we include the supplier office; serving the CF site if it is located within the 50-mile / 81-kilometer radius is included;
- Service providers with the majority of employees residing within 50-mile / 81-kilometer; and,
- Employee reimbursements are not included.

As of the December 31st reporting year, CF spend a total of approximately \$506.5 million (45.1%) on local suppliers – shown below (in local currency).

Local Supplier Spending (USD)

Site	% Local Spend
Courtright	41.6%
Deerfield	57.5%
Donaldsonville	67.8%
Medicine Hat	20.8%
Port Neal	38.7%
Verdigris	47.6%
Woodward	2.4%
Yazoo City	37.1%
North America Sites	46.2%
Ince	31.3%
Billingham	54.5%
U.K. Sites	40.9%

205 Anti-Corruption

103-1,2,3

Management Approach

CF promotes a high-integrity culture that guides our day-to-day work and applies to every aspect of our operations, from putting safety first to conducting business in an ethical manner to serving our customers responsively and reliably. We are committed to doing the right thing, every time, in all of our business dealings. CF's commitment to ethical behavior is captured in our Code of Corporate Conduct, which applies to all directors, officers and employees, all of whom participate in our code of conduct and anti-corruption training annually. In addition, all employees must acknowledge receiving and reading our EHS policy. Our sales professionals are also required to complete annual anti-trust training.

205-1

Operations assessed for risks related to corruption

See [Code of Corporate Conduct](#), pages 9-11 and 16-18

See 2019 Form 10-K, pages 24-25 and 129

205-2

Communication and training about anti-corruption policies and procedures

All CF employees participate in annual code of conduct and anti-corruption training.

See also [Code of Corporate Conduct](#), pages 9-11 and 16-18

See also [Anti-corruption Compliance Policy](#)

206 Anti-Competitive Behavior

103-1,2,3

Management Approach

See GRI Disclosure 205 – Anti-Corruption – Management Approach

206-1

Legal actions for anti-competitive behavior, anti-trust and monopoly practices

There were no legal actions pending or completed during the reporting period regarding anti-competitive behavior or violations of anti-trust or monopoly legislation in which the company was identified as a participant.

ENVIRONMENT

301 Materials

103-1,2,3

Management Approach

Our primary fertilizer products are ammonia, granular urea, urea ammonium nitrate (UAN) and ammonium nitrate (AN). We also produce Diesel Exhaust Fluid (DEF), which helps reduce emissions from combustion engines in trucks. The primary input for these nitrogen-based crop nutrients is natural gas and other chemicals and additives. The majority of our products are sold in bulk for use in agricultural and industrial applications. Accordingly, the use of packaging is not material.

301-1

Materials used by weight or volume

Natural gas makes up 95 to 97 percent of CF raw materials and the remainder are chemicals and other additives.

301-2

Recycled input materials used

This disclosure is not material to our products or operations.

301-3

Reclaimed products and their packaging materials

This disclosure is not material to our products since the majority are sold in bulk.

302 Energy

103-1,2,3

Management Approach

SASB Topic: Greenhouse Gas Emissions, Code: RT-CH-110a.2

Our natural gas-based nitrogen production process is more energy efficient and results in lower emissions than the coal-based processes used in other parts of the world, such as China. The manufacturing of our products, however, uses the Haber-Bosch process to convert natural gas and atmospheric nitrogen into ammonia and is an energy-intensive process.

Each year, we make significant capital investments in our manufacturing and distribution facilities to improve energy efficiency, safety and reliability. In addition, capital expenditures have included voluntary investments in carbon capture and nitrous oxide abatement technologies that reduce greenhouse gas (GHG) emissions.

In the agriculture sector, land use is the greatest GHG emissions contributor. Fertilizers improve crop yields, up to 30 percent for some plants, meaning less land is required to grow the same amount of food for the growing world population. This, in turn, reduces the amount of carbon-sequestering forests converted into farm land. In addition, our DEF also improves fuel efficiency in heavy duty trucks by up to 5 percent.¹

Our focus on energy efficiency extends to our distribution network that is designed to move product over greater distances with less impact. CF distribution facilities are located close to North America’s major crop-growing regions. With multiple transport modes available, we typically utilize the options that make the most sense in terms of fuel efficiency and carbon footprint. In some instances, we are also able to move ammonia through pipeline, which in most cases, is more energy and cost-efficient than truck, barge or rail transport.

¹2017 Corporate Sustainability Report

302-1

Energy consumption within the organization

SASB Topic: Energy Management, Code: RT-CH-130a.1

Total natural gas consumption during the reporting period was 360,271,343 MMBtus of natural gas.

Total electricity consumption during the reporting period was 3,209 kWh, of which 23% came from renewable energy sources.

302-2

Energy consumption outside the organization

Energy consumed outside the organization is currently unavailable. CF will continue to collaborate with vendors and contractors to quantify the amount of energy consumed outside the organization.

302-3

Energy intensity

	2019	2018	2017
Natural Gas Consumption (GJ)	380,106,437	366,620,598	376,604,447
Natural Gas Intensity (Gigajoules/Tonne of Production) ¹	11.1	11.2	11.6

¹For the 2019 reporting year, CF changed the calculation for its energy intensity number from MMBtus/Nutrient Tonne to Gigajoules/Tonne of Production. This modification ensures consistency with our CO₂e emissions intensity calculation.

302-4

Reduction of energy consumption

Natural gas consumption increased by 13,485,839 GJ from 2018 to 2019. Consumption is largely a function of production volumes.

CF’s energy efficiency improvements are part of a broader strategic business plan designed to help us meet or exceed productivity, reliability and profitability requirements. This plan includes strategies for lowering purchased energy consumption through more efficient processes and improved procurement strategies.

The majority of energy use related to our products occurs in the manufacturing phase of the product lifecycle. The majority of products are used in agricultural applications. We actively promote the 4R Plus Nutrient Stewardship program that utilizes science-based best management practices for fertilizer application to achieve specific cropping system goals, while improving agricultural and energy efficiency.

303 Water and Effluents

SASB Topic: Water Management, Code: RT-CH-140a.3

CF is committed to being good stewards with respect to our manufacturing inputs, including water. CF uses water for many purposes at our manufacturing sites, including steam generation, driving turbines, keeping equipment at necessary temperatures, and as a raw material additive for products such as aqua ammonia and DEF.

We measure and monitor 100 percent of our major facilities' water withdrawals using either invoices or meter data. We also measure and monitor 100 percent of our major facilities' water discharges using either invoices, meter data, or engineering estimates. CF is committed to doing our part to ensure that our products are applied in the right manner so that they stay on farmland and out of adjacent water bodies.

CF is proud to partner with The Nature Conservancy and over 50 other stakeholders to advance the 4R Plus campaign in Iowa. The 4R Plus campaign is designed to increase awareness and understanding among Iowa's farmers and crop advisers of two important farming practices 4R Nutrient Stewardship and conservation.

4R Nutrient Stewardship refers to the concept of applying the right nutrient source at the right rate, right time, and right place. The "Plus" in 4R Plus refers to a suite of in-field and edge-of-field conservation practices that increase soil resiliency and help to keep nutrients on fields and out of adjacent water bodies. To do this, the campaign is using multiple outreach strategies—from online tools such as a website, social media, and training modules for crop advisers to radio spots, brochures, and field days—to spread 4R Plus messaging to as many Iowa farmers and crop advisers as possible.

See 2019 Corporate Sustainability Report, page 19

Water discharges from CF facilities are monitored in accordance with the applicable regulatory standards.

The following water sources are not significantly impacted by CF's discharge of water:

- Billingham — River Tees
- Courtright — St. Clair River
- Donaldsonville — Mississippi River
- Ince — Manchester Ship Canal
- Medicine Hat — South Saskatchewan River
- Port Neal — Missouri River
- Verdigris — Verdigris River
- Woodward — North Canadian River
- Yazoo City — Yazoo River

The total water withdrawal by CF Industries during the reporting period is summarized in the table below. None of the withdrawals were from areas with water stress, based upon cross-referencing of the facility withdrawal areas against the World Resources Institute “Aqueduct Water Risk Atlas.” All withdrawals were of Freshwater (Total Dissolved Solids \leq 1,000 mg/L).

Water withdrawals (in megaliters):	2019 ¹	2018 ^{1,2}	2017 ²
Third party water / Municipal intake	21,066	25,463	26,041
Surface water / River intake	102,453	80,973	87,569
Groundwater / Well Water intake	20,026	19,696	19,127
Totals	143,545	126,132	132,737

¹Reported values include contributions from Distribution Facilities.

²Reported data includes more detailed classification and broader analysis of previous years' water withdrawal volumes.

The total water discharges by CF Industries during the reporting period are summarized in the table below. No discharges were to areas of water stress, based upon cross-referencing of the facility locations against the World Resources Institute “Aqueduct Water Risk Atlas.” All discharges were to Freshwater (Total Dissolved Solids \leq 1,000 mg/L).

Water Discharged (in megaliters):	2019 ¹	2018 ^{1,2}	2017 ²
Third party water / Municipal intake ³	2	1	-
Surface water / River intake	81,614	60,088	59,926
Groundwater / Well Water intake ³	1,508	1,438	-
Totals	83,124	61,527	59,926

¹Reported values include contributions from Distribution Facilities.

²Reported data includes more detailed classification and broader analysis of previous years' water discharge volumes.

³Discharges to Groundwater and Municipal / Publicly Owned Treatment Works (POTW) only apply to Distribution Facilities and these data were not previously captured in 2016-2018 GRI Content Indices.

The total water consumption by CF Industries during the reporting period is summarized in the table below. None of the consumption was in areas of water stress, based upon cross-referencing of the facility locations against the World Resources Institute “Aqueduct Water Risk Atlas.”

	2019 ¹	2018 ¹	2017 ²
Total water consumption (in megaliters)	60,420	64,582	72,811

¹Reported values include contributions from Distribution Facilities.

²Reported data includes more detailed classification and broader analysis of previous years' water withdrawal and discharge volumes.

304 Biodiversity

Responsible stewardship of areas with high biodiversity is consistent with the principles of our environmental, health and safety management program. CF operates in compliance with regulatory requirements and under environmental emission and discharge permits.

Furthermore, CF actively promotes biodiversity through the 4R Plus Nutrient Stewardship program. This program encompasses science-based, fertilizer best management practices in fertilizer application to achieve specific cropping system goals, while protecting health, safety and the environment. By increasing the productivity of existing cropland, the 4R Plus program promotes biodiversity by reducing the potential that undeveloped land is cleared and planted for crop production.

304-1

Operational sites owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas

CF does not operate any sites in or adjacent to protected areas or areas of high biodiversity.

304-2

Significant impacts of activities, products and services on biodiversity

CF manufacturing and distribution activities do not have significant negative impacts on biodiversity. Further, there is no expansion activity that occurred during the reporting period that would have potential negative impacts on biodiversity.

304-3

Habitats protected or restored

CF participated in restoration projects at our Courtright, Ontario, Nitrogen Complex. Activities included:

- Installing seven purple martin houses to promote purple martin nesting;
- Working with Ontario's Ministry of Natural Resources and Forestry to build bat houses on site for insect control; and,
- Partnering with the Rural Stewardship Lambton Network to eliminate invasive plant species and promote re-naturalization.

IUCN Red List species and national conservation list species with habitats in areas affected by operations

CF does not specifically manage wildlife species per the International Union for Conservation of Nature (IUCN) Red List designations. All activities, however, are operated in accordance with the regulations established for threatened or endangered species by regulatory agencies with authority in the regions in which CF operates.

The following tables summarize the species listed by the IUCN Red List in the vicinity of each of the listed sites:

IUCN Red List of Species Possibly in the Vicinity of Operations (U.S. Facilities)

IUCN RED LIST DESIGNATION	NUMBER OF SPECIES	SPECIES
Donaldsonville Nitrogen Complex, Donaldsonville, LA		
Critically Endangered	6	Ivory-billed Woodpecker, Scalloped Hammerhead Shark, Great Hammerhead Shark, Largetooth Sawfish, Smalltooth Sawfish, Atlantic Ridley Sea Turtle
Endangered	10	Bumble bee, American Eel, Whale Shark, Dusky Shark, Green Sea Turtle, Great Northern Tilefish, North Atlantic Right Whale, Giant Devil Ray, Lesser Devil Ray, Bentfin Devil Ray
Vulnerable	33	Available at https://www.iucnredlist.org/search/map
Near Threatened	36	Available at https://www.iucnredlist.org/search/map
Least Concern	1,243	Available at https://www.iucnredlist.org/search/map
Port Neal Nitrogen Complex, Sergeant Bluff, IA		
Critically Endangered	-	None
Endangered	9	Pallid sturgeon, Little Brown Bat, Bumble bee, American Eel, Western Prairie Fringed Orchid, Fore Aster, Dakota Skipper, Blanding's Turtle, Whooping Crane
Vulnerable	13	Available at https://www.iucnredlist.org/search/map
Near Threatened	17	Available at https://www.iucnredlist.org/search/map
Least Concern	492	Available at https://www.iucnredlist.org/search/map
Verdigris Nitrogen Complex, Claremore, OK		
Critically Endangered	1	Delaware County Cave Crayfish
Endangered	6	Little Brown Bat, Bumble bee, American Eel, Neosho Mucket, Western Prairie Fringed Orchid, Whooping Crane
Vulnerable	15	Available at https://www.iucnredlist.org/search/map
Near Threatened	22	Available at https://www.iucnredlist.org/search/map
Least Concern	576	Available at https://www.iucnredlist.org/search/map
Woodward Nitrogen Complex, Woodward, OK		
Critically Endangered	-	None
Endangered	3	Arkansas River Speckled Chub, Bumble bee, Black-footed Ferret
Vulnerable	12	Available at https://www.iucnredlist.org/search/map
Near Threatened	14	Available at https://www.iucnredlist.org/search/map
Least Concern	446	Available at https://www.iucnredlist.org/search/map
Yazoo City Nitrogen Complex, Yazoo City, MS		
Critically Endangered	3	Bachman's Warbler, Ivory-billed Woodpecker, American Chestnut
Endangered	7	Bumble bee, Little Brown Bat, Pallid Sturgeon, Sheepsnose Mussel, Crayfish, Round Hickorynut Mussel, American Eel
Vulnerable	14	Available at https://www.iucnredlist.org/search/map
Near Threatened	21	Available at https://www.iucnredlist.org/search/map
Least Concern	585	Available at https://www.iucnredlist.org/search/map

IUCN Red List of Species Possibly in the Vicinity of Operations (Canada and U.K.)

IUCN RED LIST DESIGNATION	NUMBER OF SPECIES	SPECIES
Courtright Nitrogen Complex, Courtright, Ontario, Canada		
Critically Endangered	4	Rusty Patched Bumble bee, Shortnose Cisco, Tubercled Blossom, American Chestnut
Endangered	7	Little Brown Bat, Eastern Small-footed Bat, Round Hickorynut, Snuffbox, Bean Mussel, Forked Aster, Blanding's Turtle
Vulnerable	21	Available at https://www.iucnredlist.org/search/map
Near Threatened	27	Available at https://www.iucnredlist.org/search/map
Least Concern	577	Available at https://www.iucnredlist.org/search/map
Medicine Hat Nitrogen Complex, Medicine Hat, Alberta Canada		
Critically Endangered	-	None
Endangered	2	Little Brown Bat, Black-footed Ferret
Vulnerable	10	Available at https://www.iucnredlist.org/search/map
Near Threatened	11	Available at https://www.iucnredlist.org/search/map
Least Concern	358	Available at https://www.iucnredlist.org/search/map
Ince Manufacturing Complex, Ince, UK		
Critically Endangered	8	Common Skate, Atlantic Sturgeon/European Sea Sturgeon, European Eel, Balearic Shearwater, Spengler's Freshwater Mussel, Gwyniad, Angelshark/Monkfish, Kemp's Ridley Sea Turtle
Endangered	10	Freshwater Pearl Mussel, Blue Whale, Sei Whale, White-clawed Crayfish, Atlantic Bluefin Tuna, Shortfin Mako Shark, Basking Shark, Green Sea Turtle, Semi-natural Grassland, Fungus
Vulnerable	51	Available at https://www.iucnredlist.org/search/map
Near Threatened	36	Available at https://www.iucnredlist.org/search/map
Least Concern	778	Available at https://www.iucnredlist.org/search/map
Billingham Manufacturing Complex, Billingham, UK		
Critically Endangered	6	Common Skate, Atlantic Sturgeon/European Sea Sturgeon, European Eel, Balearic Shearwater, Spengler's Freshwater Mussel, Angelshark/Monkfish
Endangered	9	Freshwater Pearl Mussel, Blue Whale, Sei Whale, White-clawed Crayfish, Atlantic Bluefin Tuna, Shortfin Mako Shark, Basking Shark, Semi-natural Grassland, Fungus
Vulnerable	45	Available at https://www.iucnredlist.org/search/map
Near Threatened	32	Available at https://www.iucnredlist.org/search/map
Least Concern	689	Available at https://www.iucnredlist.org/search/map

305 Emissions

103-1,2,3

Management Approach

See GRI Disclosure 302 – Energy – Management Approach

305-1

Direct (Scope 1) GHG Emissions

SASB Topic: Greenhouse Gas Emissions, Code: RT-CH-110a.1

	2019	2018	2017
Total CO ₂ e Scope 1 Emissions (in million metric tonnes CO ₂ e)	18.3	16.7	17.6
Scope 1 CO ₂ (in million metric tonnes CO ₂ e)	12.6	11.9	12.8
Scope 1 N ₂ O (in million metric tonnes CO ₂ e)	5.7	4.8	4.7
Scope 1 CH ₄ (thousand metric tonnes CO ₂ e)	57.8	36.8	45.2

CF's methodology for reporting CH₄ emissions changed in 2019. We have provided new metrics for 2017 and 2018.

305-2

Indirect (Scope 2) GHG emissions

	2019	2018	2017
CO ₂ e Scope 2 Emissions (metric tonnes)	883,682	896,392	866,638*

*CF over-reported its Scope 2 emissions in the 2017 GRI Content Index due to an accounting error that was corrected in 2018.

305-3

Other indirect (Scope 3) GHG emissions

Indirect emissions associated with crop nutrient product use are addressed through CF's support of the 4R Plus Nutrient Stewardship program. Note that the GHG emissions from the application of our product are highly dependent on the choice of crop, conditions, timing and application rate chosen by the farmer.

We anticipate expanding the scope of our reporting for this indicator in the future.

305-4

GHG emissions intensity

	2019	2018	2017
Tonnes CO ₂ e per Tonne of Production	0.56	0.54	0.57

305-5

Reduction of GHG emissions

Scope 1 GHG emissions increased by 1.6m tonnes from 2018 to 2019, and Scope 2 emissions decreased by 12,710 metric tonnes during the same time period.

GHG emissions are directly linked to the use of natural gas for ammonia production, and the Scope 1 increase in 2019 is largely driven by increased production.

305-6

Emissions of ozone-depleting substances (ODS)

This disclosure is not material because emissions of Ozone Depleting Substances (ODS) from CF Industries' manufacturing and distribution facilities are negligible.

305-7

Nitrogen oxides (NO_x), sulfur oxides (SO_x) and other significant air emissions

SASB Topic: Air Quality, Code: RT-CH-120a.1

NO_x, SO_x and Other Emissions (in metric tonnes)

	2019	2018	2017
PM10	872	807	820
PM2.5	760	734	747
NO _x	9,984	9,684	9,995
SO ₂	29	30	29
VOCs	882	1,835	2,320
NH ₃	10,384	9,203	8,723

306 Effluents and Waste

103-1,2,3

Management Approach

CF has developed a Waste Vendor Standard that provides a risk-based framework for evaluating vendors who receive, transport, store, re-use, recycle, treat, and/or dispose waste for CF. Each location has implemented a program to evaluate vendors managing wastes generated by the facility to assure that the vendor's operations are being conducted lawfully and responsibly.

Waste streams are evaluated to determine hazards and associated risks. In most cases, regulatory requirements dictate how the waste is characterized by the location as well as the allowable treatment and disposal technologies to be applied. The waste vendor is then evaluated to determine capability to handle the waste, historic compliance of the vendor, financial risk, waste management practices, and other criteria specific to the regulatory requirements of the region.

CF treats wastewater prior to discharge as needed and in compliance with discharge permit requirements at each of its facilities. A range of treatment methods are used and vary from facility to facility. Treated water is discharged to a surface water in compliance with permitted discharge limits.

See also GRI Disclosure 303 – Water and Effluents – Management Approach

306-1

Water discharge by quality and destination

See GRI Disclosure 303-4 – Water discharge

306-2

Waste by type and disposal method

SASB Topic: Hazardous Waste Management, Code: RT-CH-150a.1

Waste by disposal option (in K Tonnes)	2019	2018	2017
Hazardous Waste Sent for Incineration	0.01	0.71	0.33
Hazardous Waste Sent for Landfill	0.82		
Hazardous Waste Sent for Recovery/Energy Recovery	0.54	0.25	0.22
Hazardous Waste Sent for Recycling	0.10		
Hazardous Waste Sent for Reuse	0.40		
Non-Hazardous Waste Sent for Composting	0.01	N/A	N/A
Non-Hazardous Waste Sent for Incineration	0.01		
Non-Hazardous Waste Sent for Landfill	16.45	28.84	19.57
Non-Hazardous Waste Sent for Recovery/Energy Recovery	0.43		
Non-Hazardous Waste Sent for Recycling	20.06		
Non-Hazardous Waste Sent for Reuse	2.24		

306-3

Significant spills

See 2019 Form 10-K, page 19

306-4

Transport of hazardous waste

CF does not use or own equipment to treat or transport any hazardous waste. Third party transporters pick up and transport hazardous waste from the facilities and deliver it to a hazardous waste management facility.

During the reporting period, a total of 2,060 tonnes of hazardous waste was generated by CF and shipped off-site for treatment, disposal or recycling; no hazardous waste was shipped internationally.

306-5

Water bodies affected by water discharges and/or runoff

Water discharges are quantitatively disclosed under GRI 303-4 – Water discharge. CF treats wastewater prior to discharge as needed and in compliance with discharge permit requirements at each of our facilities. A range of treatment methods are used prior to discharging the treated wastewater.

The following surface water bodies that are receiving waters of discharges from CF facilities are not significantly affected (annual discharge volume less than 5 percent of receiving water annual flow):

- Billingham – River Tees
- Courtright – St. Clair River
- Donaldsonville – Mississippi River
- Ince – Manchester Ship Canal
- Medicine Hat – South Saskatchewan River
- Port Neal – Missouri River
- Verdigris – Verdigris River
- Woodward – North Canadian River
- Yazoo City – Yazoo River

307 Environmental Compliance

103-1,2,3

Management Approach

SASB Topics: Water Management, Code: RT-CH-140a.2 and Management of the Legal & Regulatory Environment, Code: RT-CH-530a.1

Our comprehensive EHS policy and strategy ensure that employees are trained and encouraged to incorporate environmental management into all aspects of their work. Our “Do It Right” culture permeates our business and drives excellence. Environmental issues and risks are identified and managed using a variety of tools at each location. Environmental metrics are regularly reviewed and an internal EHS Audit program helps ensure our environmental compliance obligations are met.

See also 2019 Form 10-K, pages 8-10 (Environmental, Health and Safety)

307-1

Non-compliance with environmental laws and regulations

See 2019 Form 10-K, pages 27-28

308 Supplier Environmental Assessment

103-1,2,3

Management Approach

See GRI Disclosure 204 – Procurement Practices – Management Approach

308-1

New suppliers that were screened using environmental criteria

New and existing suppliers are screened regularly utilizing a third party service. This service screens for criminal activity, including environmental crimes. Per the CF Third Party Code of Conduct and our contractual commitments, suppliers are expected to be in full compliance with all applicable laws (including environmental laws), rules and regulations that govern the jurisdictions in which they do business. In addition, we evaluate suppliers for potential risks related to environmental compliance using supplier risk matrices. The information to complete these assessments is compiled from a variety of sources including third party market intelligence, internal supply market analyses and public news sources.

308-2

Negative environmental impacts in the supply chain and actions taken

As suppliers are screened on a regular basis, any negative impacts are mitigated and addressed as known. CF is not aware of any suppliers with any significant negative environmental impact.

SOCIAL

401 Employment

103-1,2,3

Management Approach

In our interactions with each other, we cultivate respect, openness and trust. We foster a working environment in which employees have a voice, feel valued, are treated fairly and encouraged to offer new ideas and challenge established norms. As an example, members of CF's senior leadership team (SLT) engage with front-line employees every quarter. Leaders travel to CF facilities, hold town hall meetings with employees, answer questions about company performance and initiatives, and gather feedback.

CF's culture attracts highly skilled individuals who are committed to our mission and who tend to stay with the company for years. This holds true even as our workforce has shifted toward younger employees in recent years. We enjoy low turnover rates, while continuing to attract talented people in search of challenging careers with opportunities to develop and grow. Thanks to the expansion of new roles across the organization, we now have multiple generations of employees working side-by-side.

We offer employees a safe, challenging and rewarding workplace environment, attractive salaries, competitive health, retirement and lifestyle benefits. All employees work under an incentive bonus plan that rewards them for doing things right. Employees are also eligible to participate in retirement plans such as pension, 401(k) or equivalent plans.

In addition to offering health, dental and vision plans, we offer wellness incentives for completing health activities and challenges; annual health risk assessments; on-site clinic services at most manufacturing sites; and an employee assistance program.

New Hires by Age Group, Gender and Region (All Locations)

New Hires	Under 30		30-50		Over 50		Totals	
	M	F	M	F	M	F	M	F
U.S.	69	13	92	16	17	7	178	36
Canada	5	6	13	8	1	2	19	16
U.K.	19	2	16	4	1	3	36	9
Totals	93	21	121	28	19	12	233	61

All data in this section is as of December 31 of the reporting year.

Employee Turnover by Age Group, Gender and Region (All Locations)

New Hires	Under 30		30-50		Over 50		Totals	
	M	F	M	F	M	F	M	F
U.S. ¹	20	7	68	24	48	13	136	44
Canada	2	-	7	3	11	4	20	7
U.K.	2	2	10	3	20	3	32	8
Totals	24	9	85	30	79	20	188	59

All data in this section is as of December 31 of the reporting year.

¹U.S. data excludes 82 terminated Safety Guards (position was eliminated and outsourced) and 23 employees from Pine Bend Warehouse (site was sold in March 2019).

Employee Turnover (Voluntary vs. Involuntary) (All Locations)

Turnover	Voluntary		Involuntary		Totals	
	M	F	M	F	M	F
U.S. ¹	102	38	34	6	136	44
Canada	15	6	5	1	20	7
U.K.	27	5	5	3	32	8
Totals	144	49	44	10	188	59

All data in this section is as of December 31 of the reporting year.

¹U.S. data excludes 82 terminated Safety Guards (position was eliminated and outsourced) and 23 employees from Pine Bend Warehouse (site was sold in March 2019).

Turnover Data from Reported Years (All Locations)

Topic	Metric	Unit	2019	2018	2017
Turnover	New Hires	Employees	294	331	304
	Terminations	Employees	247	265	283
	Voluntary Terminations	Percentage	78.1	83.4	74.2

All data in this section is as of December 31 of the reporting year.

Benefits provided to full-time employees that are not provided to temporary or part-time employees

In the U.S. and Canada, CF provides competitive compensation and bonus opportunities for jobs in all disciplines at our sites based on company and individual performance. Benefits are not restricted to those who work full-time only, some are provided to those who work part-time as well. In addition, CF Industries contributes toward retirement plans, which include defined-benefit pension plans and defined-contribution plans. The majority of administrative, insurance and other costs associated with CF-sponsored health and welfare plans are borne by the company. Participation in the retirement plans is automatic in all countries.

EMPLOYEE BENEFITS (✓ = YES)

Type of Benefit	U.S.	Canada
Health Care	✓	✓
Life Insurance	✓	✓
AD&D Insurance	✓	✓
Disability Coverage	✓	✓
Employee Assistance Program	✓	✓
Relocation Assistance	✓	✓
Defined-benefit Pension Plan	✓	✓
Defined-contribution Plan	✓	✓
Long Term Incentives	✓	✓
Short Term Incentive – Variable Incentive Plan	✓	✓
Formal Wellness Plan	✓	
Maternity Leave	✓	✓
Paternity Leave		✓
Sickness Leave	✓	✓
Deferred Bonus	✓	
Tuition Assistance/Education	✓	✓
Long Service Awards	✓	✓

Benefits provided to full-time employees that are not provided to temporary or part-time employees (Continued)

In the U.K., CF provides competitive compensation and bonus opportunities for jobs in all disciplines at our sites based on company and individual performance. Benefits are not restricted to those who work full-time only; they are provided on an equal basis to those who work part-time too. In addition, CF Fertilisers UK contributes toward pension schemes, which include closed defined-benefit pension plans and open defined-contribution plans. The majority of administrative, insurance and other costs associated with CF-sponsored health and welfare plans is borne by the company. Participation in the pension scheme is subject to a minimum of auto-enrollment legislation in the U.K. The only group not entitled to all benefits are our apprentices. We have 24 apprentices out of a total workforce of 612 employees.

EMPLOYEE BENEFITS (✓ = YES)

Type of Benefit (U.K.)	Apprentices	Regular Workforce
Private Medical Insurance		✓
Life Insurance ¹	✓	✓
Critical Illness Cover	✓	✓
Relocation Assistance		✓
Long Term Incentive – Equity Program		✓
Short Term Incentive – Variable Incentive Plan		✓
Employee Assistance Program	✓	✓
Statutory Leave and Payment – Sickness, Maternity, Paternity and Adoption	✓	✓
Organizational Leave and Payment – Sickness, Maternity, Paternity and Adoption		✓
Statutory Parental Leave	✓	✓
Holiday Leave and Pay	✓	✓
Pension Scheme	✓	✓
Long Service Awards		✓

¹Up to age 75 and provided the employee is a member of the pension scheme or has fixed protection in place.

In the U.S., U.K. and Canada, CF offers a Parental Leave program for all employees.

Our U.S. employees do not have a paternity leave program available to them, but we do offer one for our Canadian employees. There are zero reports of employees taking paternity leave during the reporting period at those locations of operations.

Data for the reporting period	U.S.	Canada	U.K.
Total number of employees who were entitled to parental leave	274 females and 0 males	26 females and 177 males	66 females and 546 males
Total number of employees who took parental leave	17 females took maternity leave	5 female took maternity leave and 1 male took paternity leave	3 females took maternity leave and 12 males took paternity leave
Total number of employees who returned to work in the reporting period after parental leave ended	13 out of 17 females	3 females and 1 male	3 females and 15 males
Total number of employees who returned to work in the reporting period after parental leave ended who were still employed 12 months after their return to work	13 out of 17 females ^{1,2}	0 female and 1 male	3 females and 14 males
Return to work and retention rates of employees who took parental leave	76.5% for females	50% for females (2 females are still on maternity leave); and 100% for males	100% for females and 93.3% for males

¹A 12-month period following the leaves has not transpired as of the December 31st reporting period.

²Others who started their parental leaves in 2019 are still on leave in 2020.

402 Labor/Management Relations

Management Approach

We recognize and respect employee rights to join any lawful organization of their own choosing. We are committed to complying with laws pertaining to freedom of association, privacy and collective bargaining.

See also GRI Disclosure 102-41 – Collective Bargaining Agreements

Minimum notice periods regarding operational changes

With regard to operational changes across CF Fertilisers in the U.K., which are our only sites with collective bargaining agreements, changes can be agreed to, either on an individual basis or through a collective agreement. When any change to a contract of employment occurs, the business is required to give written notification of the changes in writing, within one month of the change taking effect.

In the event of a redundancy situation effecting 20 to 99 or more staff, CF Fertilisers will commence a period of collective consultation that must start at least 30 days before the dismissals take effect. With 100 or more redundancies, the consultation must start at least 45 days before any dismissals take effect. Thereafter, the contractual notice period, as defined with our contracts of employment or collective agreement, would then be invoked.

403 Occupational Health and Safety

103-1,2,3

Management Approach

Our highest priority is the safety of those who work in or live near our facilities. Safety at CF starts with our “Do It Right” philosophy, which includes equipping our employees with the proper safety knowledge, tools and procedures, and a culture that encourages employees to act with safety in mind every time they come to work. Our strong safety culture has produced consecutive years of continuous improvements in its recordable incident rate.

Employees are the most important part of our safety process and receive regular safety, health and process operation training. This includes annual EHS training and testing that focuses on daily operations, handling hazardous materials and emergency response.

Our safety procedures apply to our supply chain, and we ensure products are safe across all of our shipping modes and even when they reach retailers. When shipping by rail, CF ensures that cars are maintained, products are loaded safely and valves and caps are secured properly. We are also certified by the International Fertilizer Association’s (IFA’s) Global Protect and Sustain program, which promotes responsible business management processes across the fertilizer lifecycle to take greater responsibility not only for how products are produced, but also for how they are developed, sourced, stored, transported and used.

CF participates in and is on the Board of ResponsibleAg, an independent nonprofit that helps retailers comply with federal environment, health, safety and security regulations related to the safe storage and handling of farm input supplies.

CF has established a robust Environmental, Health, Safety, and Security (EHS) management system that sets the framework for the EHS activities, establishes minimum company EHS requirements, and facilitates the development and implementation of the company EHS processes. This comprehensive EHS management system, that has been established through a number of documented statements and is applicable to all workers, activities and workplaces, includes:

- EHS Policy;
- EHS Management Manual, which includes a series of five elements and associated minimum expectations and requirements that must be met across the company;
- Company-wide EHS documentation (e.g., policies, standards, plans and procedures), typically established by the EHS Steering Committee and implemented at all levels and functions of the organization. These EHS standards and guidance are provided via a series of appendices to the EHS Management Manual; and,
- Location-specific EHS documentation (e.g., plans and procedures) developed and implemented at the location level.

The EHS management system is designed to follow a Plan-Do-Check-Act cycle that promotes and drives continual improvement:

- **PLAN:** Understanding our compliance obligations and our risks and developing a management system that addresses them;
- **DO:** The implementation of our management system requirements, including those in the EHS Management Manual as well as our EHS Standards;
- **CHECK:** EHS audit program* and the annual EHS assurance letter; and,
- **ACT:** Management review and resulting adjustments made to the management system to drive continual EHS performance improvement.

Each CF location has established a location-specific EHS management system that facilitates a safe, secure, productive, and environmentally responsible workplace and implements company and location-specific EHS expectations and regulatory requirements.

In addition, “Best Practice” teams have been established within CF. One of the teams addresses best practices for the storage and handling (i.e., loading and unloading) of our products. This team includes representatives from each of our operations as well as corporate transportation and EHS personnel. All employees who deal with hazardous material transport receive regulatory and site-specific training to ensure that hazardous materials are properly handled at each step of our shipping process.

*CF has a world-class EHS audit program, which includes all of our facilities and joint ventures. Our EHS audits are risk-based and track findings throughout their lifecycle. Through these audits, we share best practices identified by our auditors and make these practices accessible through our company intranet. CF’s EHS policy is available [here](#).

Each CF location has developed and implemented processes and procedures to identify environmental, health, occupational safety, process safety, and security-related hazards. The identification of hazards is done in a systematic manner and takes into account past, current, and future/planned activities. All EHS hazards are assessed to determine risk potential and priority, based on the likelihood of occurrence and the potential impact of the consequences.

Risk management controls are then put in place to minimize risk to as low as reasonably practicable. These controls are regularly monitored for effectiveness and updated to respond to changing conditions or activities. Process controls, mechanical integrity assurance processes, and sound maintenance and inspection procedures have been established by each location to allow continued compliance with design and operational parameters. In addition, each location has established a change management process. This process assesses the impact of any change to personnel, process, chemicals, technology, equipment, or procedures from an EHS perspective, implements appropriate risk mitigation for additional risk that may be introduced by the change, and informs and trains employees affected by the change prior to its implementation/start-up.

An incident/near miss/hazard reporting and investigation process has been established at every location and is based on applicable regulations, the company's EHS Management Manual, and other applicable company EHS standards. All incidents/near misses/hazards are promptly communicated to location management or their designated representative. All incidents/near misses/hazards are investigated and appropriate corrective actions implemented. Location management works with the investigation team to appropriately communicate lessons learned within the organization, including to Senior Management where applicable. The level of investigation and priority for corrective action is proportionate to the potential severity and frequency of the event.

SASB Topic: Workforce Health & Safety, Code: RT-CH-320a.2

All company locations maintain an inventory of hazardous materials (e.g., raw materials, intermediates, by-products and products) at the site. Safety Data Sheets (SDS) are to be obtained for each hazardous material and reviewed to determine proper handling, storage and disposal practices. Product-specific and site-specific information and training is provided to all employees and contractors who work with or in proximity to hazardous materials. The training program is reviewed at least annually, and can be reviewed more frequently if required by a change in materials or work conditions.

Each location maintains a health program for its employees that meets or exceeds regulatory requirements and utilizes the services of a licensed health care professional in the development and on-going execution of this program. Each location has established an Occupational Exposure Assessment Program to identify potential exposures of employees to chemical or physical (e.g., noise) agents, which may be present in the workplace environment, to evaluate such exposures, and to provide information for use in reducing such exposures where appropriate. The services of a Certified Industrial Hygienist (CIH or equivalent) are utilized to develop and periodically review each location's program.

Where there is a potential for exposure to chemical or physical (e.g., noise) agents covered by specific governmental regulations, the Location maintains monitoring programs that comply with requirements of governmental regulations. Monitoring programs for other substances or agents have been established as determined by the Occupational Exposure Assessment Program. Each location has implemented appropriate control measures to ensure that such exposures are eliminated or reduced to regulated/company levels (whichever is lower) or see that adequate protection or safeguards are implemented.

CF has safety committees at the majority of our operations, representing more than 87 percent of all employees. The role of these committees, which are comprised of employees from all levels, is to promote safety awareness and reinforce a working environment that promotes engagement, empowerment, and teamwork among employees while pursuing safety excellence.

403-5

Worker training on occupational health and safety

Properly trained and competent personnel are an essential requirement for the safe and environmentally responsible operation of our locations. Therefore, each location has established systems to ensure employees receive all applicable and mandatory EHS trainings. All employees, contractors, and visitors are provided with training that promotes general EHS awareness, reinforces our EHS policy and management system, and develops or maintains appropriate personnel skill and knowledge levels required for a safe, healthful, secure, and environmentally sound operation. Free-of-charge training is provided to ensure that employees possess the required understanding, knowledge, skills and abilities to carry out their duties and responsibilities safely. In addition, all personnel who perform activities that are deemed critical to EHS performance are appropriately qualified and trained to ensure they understand the risks involved and can properly utilize appropriate risk control measures. Competency testing is conducted to ensure that all trainees understand the proper procedures associated with those critical activities.

403-6

Promotion of worker health

See GRI Disclosure 401-2 – Benefits provided to full-time employees that are not provided to temporary or part-time employees

403-7

Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

CF's EHS management system covers all employees, contractors and visitors to our locations. All locations have established safe work procedures and other controls to ensure the safety of their employees, contractors, and visitors during both routine and non-routine work.

403-8

Workers covered by an occupational health and safety management system

See GRI Disclosure 403-7 – Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

403-9

Work-related injuries

SASB Topic: Workforce Health & Safety, Code: RT-CH-320a.1

Health, Safety and Security Management	Unit	2019	2018	2017
Employee Health and Safety ¹ :				
Fatality rate	Total/200,000 hrs.	-	-	-
Total injuries	Injuries	14	18	17
Lost time incident rate	Total/200,000 hrs.	0.17	0.23 ²	0.07
Recordable incident rate	Total/200,000 hrs.	0.48	0.60	0.57
Contractor Health and Safety ¹ :				
Fatality rate	Total/200,000 hrs.	-	-	-
Total injuries	Injuries	18	21	16
Lost time incident rate	Total/200,000 hrs.	0.15	0.06 ²	Not tracked
Recordable incident rate	Total/200,000 hrs.	0.94	0.87	0.92

¹According to the Occupational Safety and Health Administration (OSHA), incidence rates can be used to show the relative level of injuries and illnesses among different industries, firms or operations within a single firm. Because a common base and a specific period of time are involved, these rates can help determine both problem areas and progress in preventing work-related injuries and illnesses. An incidence rate of injuries and illnesses may be computed from the following formula: (Number of injuries and illnesses X 200,000) / Employee hours worked = Incidence rate. The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rate for an entire year. In 2018, the company expanded the reporting of its recordable incident rate and lost time incident rate to include all employees as opposed to only manufacturing and distribution employees as had been done previously. Data since 2016 has been updated to reflect the change.

²Data was corrected from what was reported in the previous year.

403-10

Work-related ill health

For work-related hazards that pose a risk of ill health, see GRI Disclosure 403-3 – Occupational health services. This year continues our record of no employee or contractor fatalities as a result of work-related ill health or cases of recordable work-related ill health.

404 Training and Education

103-1,2,3

Management Approach

Building the skill and experience of our workforce is as important as making capital improvements to our plants. That is why we invest in extensive recruitment, training and professional development opportunities for our employees. For example, in the U.S., talented finance and accounting professionals take part in a three-year leadership development program that gives them experience in financial planning and analysis, general accounting, cost accounting, and plant manufacturing accounting and analysis. We view these types of development opportunities as being a key part of succession planning, allowing us to grow a stronger company, today and for the future. In the U.K., we offer apprenticeship programs through which students can access training, local college instruction and on-site learning with CF. At the end of the three-year program, graduates may fill roles as chemical, mechanical and electrical engineers, mechanical technicians and process operators.

404-1

Average hours of training per year per employee

Region	Average Hours
North America	37.96
United Kingdom	28.21

404-2

Programs for upgrading employee skills and transition assistance programs

CF provides internal job competency training for all our manufacturing employees, always prioritizing health and safety. Internal manufacturing training focuses on the skills needed to successfully perform particular roles and includes online training, instructor led training, on the job coaching, and acquiring the skills to progress through various levels of competency. We assess knowledge and skill mastery internally.

CF also provides leadership and management development to team leaders internally and through external vendors to build people management skills. In addition, we focus on building targeted capabilities by designing and delivering customized training workshops aligned to our leadership competency model.

CF supports further training and education of employees through our North American Tuition Reimbursement Program and U.K. Educational Support Policy. Financial support is provided for employees up to degree level.

We provide training to employees in the event of a process or role change. Depending on circumstances, we offer outplacement support via a third party organization to employees whose employment is terminated to support their job search.

We also provide support and training for employees whose employment is terminated due to a reduction in force or job elimination. We offer outplacement support via a third party organization including job search planning, resume development, custom career coaching and recruiter outreach.

In the U.S. and Canada, CF provides retiring employees access to financial calculators, planning tools and articles via our third party vendors. This includes optional services providing advice on fund values, state offerings and analysis based on the timelines involved for retirement.

In the U.K., transition assistance programs are provided to facilitate continued employability and the management of career endings resulting from retirement or termination of employment. Prior to employees retiring, employees have access to financial advice via external pension providers.

Percentage of employees receiving regular performance and career development reviews

Our performance management process applies to 100 percent of employees at CF. It includes annual goal setting aligned to business goals, an employee initiated mid-year career and individual development planning dialogue, and an end of year performance review. Although this is an annual process, we encourage employees and managers to check in regularly throughout the year to discuss their progress and development needs. All employees are assessed annually on the results they achieve (goals), as well as how they achieve those results through the demonstration of the leadership behaviors outlined in the CF leadership competency model.

It is our policy that all employees receive a performance review with the exception of those employees who are on short-term/long-term leave, new-hires still within the probation period, and those employees that have been terminated within the year.

405 Diversity and Equal Opportunity

Management Approach

We work together to make sure our workplace is a respectful, inclusive and productive one. This means that our organization will never unlawfully discriminate against any person on any basis in our operations. This also means, in part, that we never make unlawful employment-related decisions based on any legally protected status or characteristic, including but not limited to race, sex, color, religion, national origin, ethnicity, age, medical condition, veteran status, disability, marital or parental status, sexual orientation, or gender identity, as and where protected by applicable law. This policy applies to all employment decisions, including recruiting, hiring, training, promotion, compensation, benefits, transfers, training practices, as well as participation in company programs.

One of CF's priorities is to invest in its people. We are committed to providing the development opportunities and compensation to ensure that CF is a company where employees are proud to work and grow. Our recruiting efforts focus on matching the best possible candidate to the position.

CF is committed to maintaining a productive working atmosphere. We do this not only because applicable law requires it, but also because a tolerant, collaborative company is more competitive in the marketplace. We strive to create an environment where everyone is able to live up to his or her potential. Accordingly, we do not tolerate any form of harassment. Harassment may be any verbal or physical conduct by any individual that disrupts, offends or interferes with another's work performance, or that creates an intimidating, offensive or hostile work environment. The company takes immediate disciplinary action against employees who engage in harassment, up to and including termination of employment. We also take appropriate action against anyone not employed or engaged by the company who violates this policy.

Diversity of governance bodies and employees

Board of Directors (All Locations):

Gender	
Male	10
Female	2
Totals	12
Gender	
Under 30	-
30-50	1
Over 50	11
Total	12

All data in this section is as of December 31 of the reporting year.

Board of Directors by Age and Gender (All Locations):

Age Group	Male		Female		Totals	
	Count	Percentage	Count	Percentage	Subtotal	Percentage
30-50	-	-	1	8.33%	1	8.33%
Over 50	10	83.34%	1	8.33%	11	91.67%
Totals	10	83.34%	2	16.66%	12	100.00%

All data in this section is as of December 31 of the reporting year. 17 percent of the Board of Directors are considered to be a member of a minority group. "Minority Group" in the United States is defined as non-white ethnicity of any gender.

Workforce by Age and Gender (All Locations):

Age Group	Male		Female		Totals	
	Count	Percentage	Count	Percentage	Subtotal	Percentage
Under 30	421	14%	66	2%	487	16%
30-50	1,460	49%	191	6%	1,651	56%
Over 50	681	23%	147	6%	828	28%
Totals	2,562	86%	404	14%	2,966	100%

All data in this section is as of December 31 of the reporting year.
U.S. and Canada data only includes 'regular' employee type.

Diversity of Employees by Age and Gender (All Locations):

Gender	Under 30		30-50		Over 50		Totals	
	Male	Female	Male	Female	Male	Female	Male	Female
U.S.	276	39	982	129	406	106	1,663	274
Canada	44	16	219	33	89	15	353	64
U.K.	101	11	259	29	186	26	546	66
Totals	421	66	1,460	191	681	147	2,562	404

All data in this section is as of December 31 of the reporting year.
U.S. and Canada data only includes 'regular' employee type.

CF strives to use salary ranges that are competitive with market pay ranges for positions of comparable responsibility, functional knowledge, impact and other compensable factors. Gender is not a factor when determining compensation. Each salary range has a minimum or threshold salary for a new hire, although CF typically sets the actual salary above this minimum.

In the U.K., we make sure our employment decisions, including compensation and progression, are based on skills, competency and job-related business criteria. Opportunities to progress careers are available to all employees and we work on the principle that the best person should be in the role regardless of gender.

U.K. Gender Pay Gap Data:

Background Information

April 2019 (Snapshot Date April 5, 2019) 1st – 30th
 Pay period containing snapshot date April 2019¹

Employee Numbers

Total number of relevant employees (no. of employees paid in April 2019) 601
 Total number of employees less than full pay (3)
 Total number of full pay employees (April 2019) 598

Gender Split of Total Workforce

Total male employees 539
 Total female employees 62
 Percentage of male employees 89.7
 Percentage of female employees 10.3

Results

Mean Gender Pay Gap in Hourly Pay	8.70%	Median Gender Pay Gap in Hourly Pay	10.9%	
Mean Gender Pay Gap in Bonus Pay	-6.80%	Median Gender Pay Gap in Bonus Pay	20.9%	
Proportion of gender in each pay quartile		Proportion of gender in each pay quartile	Male	Female
Males receiving a bonus	96.10%	Upper Quartile	92.6%	7.4%
		Upper Middle Quartile	92.6%	7.4%
Females receiving a bonus	90.30%	Lower Middle Quartile	93.3%	6.7%
		Lower Quartile	81.3%	18.7%

¹Data comes from U.K.'s statutory Gender Pay Gap Reporting available every April of the reporting period, containing 12-month data from April to March.

406 Non-Discrimination

See GRI Disclosure 405 – Diversity and Equal Opportunity – Management Approach

Four individual complainants brought separate allegations of age or disability discrimination to the attention of the company or competent authorities.

One complaint was withdrawn; one complaint was investigated and resolved with no finding of discrimination; two complaints are subject to legal action that CF is defending.

407 Freedom of Association and Collective Bargaining

103-1,2,3

Management Approach

We recognize and respect employee rights to join or not join any lawful organization of their own choosing. We are committed to complying with laws pertaining to freedom of association, privacy and collective bargaining.

See also GRI Disclosure 102-41 – Collective Bargaining Agreements

407-1

Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

CF does not have any operations in which the right to exercise freedom of association and collective bargaining are identified as a significant risk. Further, CF is not aware of suppliers where these rights are at risk. Per our [Human Rights Policy](#), we recognize and respect employee rights to join or not join any lawful organization of their own choosing. We are committed to complying with laws pertaining to freedom of association, privacy and collective bargaining. Per our [Third Party Code of Conduct](#) and our contractual commitments, suppliers are expected to be in full compliance with all applicable laws, rules and regulations that govern the jurisdictions in which they do business. In addition, we evaluate suppliers for potential risks related to labor using supplier risk matrices. The information to complete these assessments is compiled from a variety of sources including third party market intelligence, internal supply market analyses and public news sources.

408 Child Labor

103-1,2,3

Management Approach

CF is committed to the protection and advancement of human rights in its global operations. Our views are informed by the working standards and human rights concepts advanced by other groups, such as the United Nations' International Bill of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.

Further, we believe that the employment relationship should be voluntary and the terms of employment must comply with applicable laws and regulations. We are, therefore, intolerant of slavery, human trafficking, forced labor and child labor and are committed to complying with applicable laws prohibiting such exploitation.

CF strives to conduct business with suppliers, business partners, contractors, vendors, agents, consultants and third parties who share our commitments to conducting business in full compliance with the letter and spirit of all applicable laws, rules and regulations, in accordance with the highest ethical standards, and in a manner that keeps our employees and communities safe. CF expects all third parties and their respective employees, agents and subcontractors to follow the principles summarized in our [Third Party Code of Conduct](#) in the conduct of their business.

These beliefs and practices are part of CF's [Human Rights Policy](#), which is communicated and accessible to all employees. Employees are instructed to report any suspected violation of this policy or the principles set forth through established channels. In addition, we provide a compliance helpline to facilitate reporting of possible violations and have a strict non-retaliation policy to protect those reporting.

408-1

Operations and suppliers at significant risk for incidents of child labor

CF does not have any operations that are identified as at significant risk for incidents of child labor or forced or compulsory labor practices. CF abides by all applicable child labor laws, as well as our hiring and employment policies. CF expects all our business partners and those who we conduct business with to comply with said labor and employment laws, including those that relate to child labor and forced labor.

CF generally does not have any suppliers in regions that are identified as at significant risk for incidents of child labor or forced or compulsory labor practices. Per the CF Code of Corporate Conduct and our contractual commitments, suppliers are expected to be in full compliance with all applicable laws, rules and regulations that govern the jurisdictions in which they do business. Where our suppliers have a supply chain that may extend into areas that are of higher risk or where risks are identified, mitigation plans will be put in place, such as additional assurances or supplier visits and audits.

409 Forced or Compulsory Labor

103-1,2,3

Management Approach

See GRI Disclosure 408 – Child Labor – Management Approach

409-1

Operations and suppliers at significant risk for incidents of forced or compulsory labor

See GRI Disclosure 408-1 – Operations and suppliers at significant risk for incidents of child labor

410 Security Practices

103-1,2,3

Management Approach

Our approach to security starts with detailed risk assessments of our operations and supply chain. We implement programs to manage these risks and have established security management plans at all of our locations. Security metrics are monitored on a regular basis and we hold quarterly meetings with senior leadership to review issues and progress on key efforts. In addition, CF has received certification in the IFA's Global Protect and Sustain program, which assesses security throughout the product lifecycle, including production, processes, storage, site security, transportation and handling of products.

External security service providers are responsible for understanding and adhering to CF's [Third Party Code of Conduct](#), which holds all service providers to the same high standards as those contained in our [Code of Corporate Conduct](#).

410-1

Security personnel trained in human rights policies or procedures

CF's [Code of Corporate Conduct](#) reaffirms the company's long-standing practice of conducting its business in full compliance with the letter and spirit of all applicable laws, rules and regulations, and in accordance with the highest level of ethical standards. All company personnel are required to read and understand the Code of Corporate Conduct on an annual basis.

External security service providers are responsible for understanding and adhering to CF's [Third Party Code of Conduct](#), which holds all service providers to the same high standards as those contained in our Code of Corporate Conduct.

CF's security personnel and security service providers working at our locations are given location-specific training that covers appropriate safety and security practices. In addition, CF Industries has received certification in the IFA Global Protect and Sustain program, which assess security throughout the product lifecycle, including production, processes, storage, site security, transportation and handling of products.

411 Rights of Indigenous People

103-1,2,3

Management Approach

See GRI Disclosure 408 – Child Labor – Management Approach

411-1

Incidents of violations involving rights of indigenous peoples

CF has had no reported incidents relating to violations involving the rights of indigenous peoples during the reporting period.

412 Human Rights Assessment

103-1,2,3

Management Approach

See GRI Disclosure 408 – Child Labor – Management Approach

412-1

Operations that have been subject to human rights reviews or impact assessments

CF is committed to the protection and advancement of human rights in its global operations and has adopted a Human Rights Policy. Our operations have not been subject to human rights reviews or human rights impact assessments during the reporting period.

Our operations in the U.K. have a Policy on Modern Slavery. As part of the rollout of the program, we conducted a modern slavery risk assessment, which focused on 100 of our largest suppliers. We then classified these suppliers into low, medium and high risk categories using a combination of factors (geographical location, structure of industry, levels of regulation, etc.). Following this classification, we contacted all medium and high risk suppliers (44 total), asking them to confirm their approach toward modern slavery, the steps they have taken to ensure there is no modern slavery in their supply chain, and whether they have published a compliance statement. The responses we received met our required standards and the requirements of the Modern Slavery Act.

412-2

Employee training on human rights policies or procedures

CF is committed to the protection and advancement of human rights in its global operations and has adopted a [Human Rights Policy](#). CF is further committed to doing the right thing, every time, in all of our business dealings. CF's commitment to ethical behavior is captured in our Code of Corporate Conduct, which applies to all directors, officers and employees, all of whom participate in our code of conduct and anti-corruption training annually. In addition, all employees must acknowledge receiving and reading our EHS policy. Our sales professionals are also provided annual anti-trust training.

412-3

Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening

The company seeks to incorporate CF's [Third Party Code of Conduct](#) or equivalent standards as a matter of course in all business agreements. We did not have any significant investment agreements during the reporting period.

In the U.K., all new suppliers are subject to a modern slavery assessment by an independent specialist organization before a contract is signed.

413 Community

103-1,2,3

Management Approach

See GRI Disclosure 202 – Market Presence – Management Approach

413-1

Operations with local community engagement, impact assessments and development programs

All CF facilities, both manufacturing and distribution, have regular, ongoing dialogue with stakeholders in the communities in which we operate. Interaction and topics range from community safety and emergency planning to economic development opportunities and philanthropic support for local causes.

413-2

Operations with significant actual and potential negative impacts on local communities

SASB Topic: Community Relations, Code: RT-CH-210a.1

CF operates a set of modern production and distribution facilities. We recognize that, as well as the economic and social benefit to their local communities, some of those operations have the potential to have negative impacts on the local environment or the safety of people.

CF actively manages the risks associated with its operations in accordance with local regulatory requirements and industry codes in order to prevent incidents and mitigate any impact. Potential impacts are evaluated and managed via risk controls, including engineered measures, procedures, emergency response arrangements and associated training. Significant investments are also evaluated for the potential negative impacts, and appropriate risk mitigation measures are identified.

At CF, our “Do It Right” philosophy extends past our daily safe operations to include preparedness for unlikely, negative impact incidents. Through our emergency management process we identify risks to our employees and communities, pre-plan our responses, and maintain emergency service resources at each of our locations. Our emergency services resources are held to industry standards of competency as responders, commanders, and incident managers. Our commitment is to continuously improve through training exercises, performance evaluations, drills, and participation in competitions against internal and external teams. Our focus on execution as a team and investment in preparedness is designed to provide a reliable state of readiness of our emergency services resources and promote a unified execution with the community.

414 Supplier Social Assessment

103-1,2,3

Management Approach

See GRI Disclosure 204 – Procurement Practices – Management Approach

414-1

New suppliers that were screened using social criteria

New and existing suppliers are screened regularly utilizing a third party service. This service screens for criminal activity, including environmental crimes, terrorism, sanctions, and politically exposed persons. In addition, per our [Third Party Code of Conduct](#) and our contractual commitments, suppliers are expected to be in full compliance with all applicable anti-corruption laws, including but not limited to the Foreign Corrupt Practices Act, anti-boycott laws and trade sanctions.

414-2

Negative social impacts in the supply chain and actions taken

As suppliers are screened on a regular basis, any negative impacts are mitigated and addressed as known. CF is not aware of any suppliers with any significant negative social impact.

415 Public Policy

103-1,2,3

Management Approach

As a global leader in the production and distribution of nitrogen fertilizers, CF believes part of its corporate responsibility is to be engaged on public policy issues of importance to the company and its supply chain. During the reporting period, CF was active on international trade, tax, energy, security, transportation, environmental and agriculture policy among other issues.

The CF global public affairs team identifies current and emerging public policy risks and opportunities to assist the corporation in achieving its business goals. The team engages with policymakers, educates them about priority issues and offers innovative solutions to complex problems ensuring company views are reflected in policy debates and outcomes. CF public policy staff organize and lead grassroots campaigns to engage employees, customers and other stakeholders in policy debates. The team has regular dialogues with leaders in both business associations and non-governmental organizations and develops partnerships based on shared concerns to achieve quantifiable results. Please see GRI Disclosures 102-12 – External initiatives and 102-13 – Membership of associations for a list of the industry organizations of which CF is a member.

The company has a political action committee, the CF Industries Employees' Good Government Fund (CF Fund) that is funded solely through voluntary employee contributions. The CF Fund offers employees a direct, voluntary way to support interests and issues by donating to candidates who support the company's values.

CF's U.S. federal lobbying reports are available at <http://lobbyingdisclosure.house.gov/> or www.disclosure.senate.gov.

415-1

Political contributions

CF discloses its political contributions on its corporate website.

www.cfindustries.com/reports

416 Customer Health and Safety

103-1,2,3

Management Approach

SASB Topic: Safety & Environmental Stewardship of Chemicals, Code: RT-CH-410b.2

CF has a dedicated Technical Services team, as well as an agronomy team, that evaluates the performance and impact of our products. We assess the health and safety impacts of our products and information is provided on product safety data sheets and in other product literature.

CF records hazards and potential opportunities with respect to the environment, safety and health on all products. This information provides management with an overview of important product issues and risks. All identified product issues and risks are assessed to allow for the prioritizing of risk reduction. The overview of required and possible corrective actions is the foundation for an optimized allocation of resources

416-1

Assessments of the health and safety impacts of product and service categories

All products and services are assessed for health and safety impacts. Safety data sheets are shared on our corporate website.

416-2

Incidents of non-compliance concerning the health and safety impacts of products and services

The CF Technical Services team ensures a high global internal standard in our production and with our products. CF reports any product enforcement action that has been identified as potentially material to investors through our Form 10-K and 10-Qs. During the reporting year, there were no fines, penalties or warnings resulting from incidents of non-compliance with regulations, or voluntary codes concerning information and labeling of products and services.

417 Marketing and Labeling

103-1,2,3

Management Approach

With regard to product information and labeling, we supply safety data sheets for all CF's fertilizer and process chemical products. These sheets contain all relevant safety and environmental information related to the product. These are accessible to those whom we supply and contain the requisite information about the environmental impact of our products, including information about safe use and disposal. Packaged product is labeled according to the applicable legal requirements and agreed industry practice (e.g., safe handling guidance).

417-1

Requirements for product and service information and labeling

See GRI Disclosure 417 – Marketing and Labeling – Management Approach

417-2

Incidents of non-compliance concerning product and service information and labeling

CF has not identified any incidents of significant non-compliance with either regulatory or voluntary code requirements.

417-3

Incidents of non-compliance concerning marketing communications

CF has not identified any incidents of non-compliance concerning marketing communications with any regulations or voluntary codes.

418 Customer Privacy

103-1,2,3

Management Approach

We outline expectations for the treatment of confidential information in our [Code of Corporate Conduct](#). Confidential information includes all nonpublic or proprietary information that might be of use to competitors, or harmful to CF or its customers, if disclosed. It may also include information related to possible transactions with other companies or information about other companies (such as our customers) that CF agreed not to disclose. Protecting all types of company information is vital to our success. This information must be maintained in strict confidence, unless otherwise required by law or CF.

418-1

Substantiated complaints concerning breaches of customer privacy and losses of customer data

We did not identify any substantiated complaints regarding breaches of customer privacy during the reporting period.

419 Socioeconomic Compliance

103-1,2,3

Management Approach

SASB Topic: Management of the Legal and Regulatory Environment, Code: RT-CH-530a.1

Socioeconomic compliance is governed by our Code of Corporate Conduct, which acts as a guide to help all CF employees and affiliated parties make good decisions, maintain the trust we have built with our stakeholders, and ensure our business success. It also reaffirms the company's long-standing practice of conducting its business in full compliance with the letter and spirit of all applicable laws, rules and regulations, and in accordance with the highest level of ethical standards.

419-1

Non-compliance with laws and regulations in the social and economic area

CF has not identified any significant fines or non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area during the reporting period. CF would report any non-compliance with laws and regulations in the social and economic area that has been identified as potentially material to investors through our Form 10-K and 10-Qs.