

### Cummins Inc. Sustainability Report

## **Table of Contents**

Vision and Strategy	Page	3
Profile	Page	5
Governance Structure and Management Systems	Page	8
Commitment to Stakeholders	Page	13
Performance Indicators		
<b>Economic Performance Indicators</b>	Page	16
<b>Environmental Performance Indicators</b>		
<b>Cummins Products</b>	Page	17
<b>Cummins Facilities</b>	Page	28
Safety	Page	39
Social Performance Indicators	Page	42
Diversity	Page	46
Contact Data	Page	49

#### From the Chairman

Cummins Inc. has a strong commitment to developing business solutions and products that meet the needs of customers. We also focus on providing value to our many stakeholders – shareholders, employees, business partners, suppliers, vendors and the communities in which we live and work. We do this while operating under a set of values that emphasize integrity, innovation, delivering superior results, corporate responsibility, diversity and global involvement.

We are pleased to provide insight into many aspects of Cummins and its operations in this, our second Sustainability Report. The goal of this report is to engage stakeholders in examining Cummins culture, practices and performance across a number of measures.

We have particularly emphasized the strong responsibility we feel to ensure that our manufacturing processes and the facilities in which we conduct our business adhere to policies and procedures that protect and preserve the environment.

The information in this report is presented in the spirit of the guidelines set by the Global Reporting Initiative (GRI). The aim of the GRI is to develop a consistent way for companies around the world to voluntarily report on the economic, environmental and social components of their business.

Started in 1997 by the Coalition for Environmentally Responsible Economies (CERES), the GRI became independent in 2002 and works in collaboration with the United Nations Environment Program (UNEP) and the UN Secretary-General's Global Compact. We are proud of the positive impact Cummins products and the people who manufacture them have had on our society. We look forward to the opportunity to make a difference, not just today but for future generations as well.

Tim Solso Chairman, CEO -- Cummins Inc.



#### **Our Vision**

Making people's lives better by unleashing the power of Cummins.

That simple, yet ambitious, statement serves as the guiding vision for Cummins Inc. and its employees worldwide.

The Company takes pride in manufacturing engines, generators, filters and related products that serve the varied needs of its customers worldwide. To do that, Cummins unleashes the power of its employees: Their energy and commitment make it possible for the Company to maintain a leadership position in the markets it serves.

Cummins also recognizes that with its role as a corporate leader comes a responsibility to help improve the communities in which employees work and live. It is a responsibility the Company brings to life through its actions and the activities of its employees. Accordingly, Cummins corporate mission and values reflect its desire to return value to its customers, employees, shareholders and communities:

#### Mission

- To motivate people to act like owners working together
- To exceed customers' expectations by always being first to market with the best products
- > To partner with our customers to ensure their success
- > To demand that everything we do leads to a cleaner, healthier, safer environment
- > To create wealth for all our stakeholders

#### **Values**

- Integrity: We strive to do what is right and what we say we will do.
- Innovation: We will apply the creative ingenuity necessary to make us better, faster, first.
- > Delivering Superior Results: Our goal is to consistently exceed expectations.
- Corporate Responsibility: We will serve and improve the communities in which we live.
- Diversity: We embrace the diverse perspectives of all people and honor them with both dignity and respect.
- Global involvement: We seek a world view and to act without boundaries.

#### **Strategic Principles**

Central to Cummins business is a five-pronged strategic approach that focuses on the following:

➤ Being a low-cost producer in as many of the Company's markets as possible. Nearly all of the Company's markets compete on price. To be successful, Cummins must offer the best products at the best prices. To do that, the Company continually scrutinizes its businesses looking for cost savings.

The Six Sigma quality program, launched in January 2000, does that for Cummins. Since its inception, more than 2,700 completed Six Sigma projects have resulted in approximately \$1 billion in savings to the Company, while infusing quality as a critical measure into every process. More than 2,300 "belts" have been trained in Six Sigma tools.

#### > Expanding into related markets.

At Cummins, expansion doesn't merely mean entering new businesses, but also leveraging existing assets and capabilities and reaching into related businesses with more favorable dynamics. The Company's focus is on businesses that complement its capital-intensive and cyclical core businesses. Examples include the creation in 2002 of the International Distributor Business and Emission Solutions, an aftertreatment venture of the Filtration Business.

#### Maximizing return on investment.

The Company has shifted its emphasis from revenue growth toward consistent and predictable earnings growth in the last few years. The principal measurements are return on equity and return on average net assets, and the Company has set aggressive targets for each measurement.

#### Leveraging complementary businesses.

Increasingly, Cummins looks for ways to leverage the synergies among its four business units. These synergies capitalize on shared capabilities including technology, distribution systems, common customers (cross selling), joint venture partners for global growth and cost reduction through the larger scale of shared services.

#### > Creating the right environment for success.

Cummins relies on the varied talents of its people, systems and organizational knowledge to reduce costs and to create differentiated products and services to grow the value of its business. Creating an inclusive learning environment with a performance ethic is a critical step in attracting, developing and retaining high-quality talent, particularly in critical skills areas. The circumstances of Cummins competitive position and market and industry dynamics make retention and redeployment of talent a required organizational objective and competency.

Cummins roots are planted in soil nourished by innovation, persistence and a commitment to community. Founded in Columbus, Ind., in 1919 as the Cummins Engine Company, for its namesake Clessie Lyle Cummins, the fledgling firm was among the first to see the commercial potential of an unproven engine technology invented two decades earlier by Rudolph Diesel.

Today, the Company is no longer just an engine business, but a global power leader with more than \$6 billion in annual sales. Cummins is a family of four interrelated, yet diversified businesses that create or enhance value as a result of doing business with each other or having those relationships. These four businesses are the Engine Business, Power Generation, Filtration and the International Distributor Business.

Cummins products can be found in nearly every type of vehicle, from the heavy-duty diesel-powered trucks that travel the world's highways, to tractors that till the soil, large trucks that carry natural resources from the mine and ships that travel the waterways. Cummins-built generators supply both prime and auxiliary power around the globe. Filters and related products help engines run cleaner and more efficiently. A network of distributors provide repair and maintenance service for customers worldwide.

#### **Engine Business**

The Engine Business, which accounted for 54 percent of the Company's sales in 2003, manufactures and markets a complete line of diesel and natural gas-powered engines for on-highway and off-highway use under the Cummins brand. Its markets include heavy- and medium- duty truck, bus, recreational vehicle (RV), light-duty automotive and a number of industrial uses including agricultural, construction, mining, marine, oil and gas and governmental equipment. The Engine Business also provides a full range of new parts and services and remanufactured parts and engines through an extensive distribution network.

Cummins engines range in size from 31 to 3,500 horsepower and from 1.4 liters to 91 liters. Primary customers include large truck and off-road equipment manufacturers, and Cummins also is the exclusive supplier of diesel engines used by DaimlerChrysler in its Dodge Ram pickup trucks. In 2002, Cummins became the first engine manufacturer to comply with the U.S. Environmental Protection Agency's tightened diesel emissions standards.

#### **Power Generation Business**

Power Generation is Cummins second largest business unit, representing 20 percent of total sales in 2003, and one of the most integrated providers of power solutions in the world. With the Engine Business, it designs or manufactures all the components that make up power generation systems, including engines, controls, alternators, transfer switches and switchgear. It is also a key player in the distributed generation market.

Products are principally marketed under the Cummins Power Generation, Onan, Stamford, Markon and AVK brands, and include diesel and alternative fuel electrical generator sets for

commercial, institutional and consumer applications, such as office buildings, hospitals, factories, municipalities, utilities, universities, RVs, boats and homes.

Power Generation is the worldwide leader in auxiliary generator sets for RVs, commercial vehicles and marine applications. The Power Rent business offers temporary equipment for both standby and prime power purposes. The Energy Solutions business provides full service power solutions for customers, including generating equipment, long-term maintenance contracts and turn-key power solutions.

The Newage AVK/SEG division is a leader in the alternator industry and supplies its products internally as well as to other generator set assemblers under the Stamford, AVK and Markon brands.

#### **Filtration Business**

The Filtration Business manufactures and markets filtration systems, air intake and exhaust systems and industrial silencers under the Fleetguard, Nelson, Kuss and Universal Silencer brands.

Products are used in diesel-powered mobile and stationary industrial applications, passenger cars and light vehicles, small engine equipment, industrial machinery and gas turbines. Primary customers include OEMs, as well as dealers and distributors.

Fleetguard is a leading designer and manufacturer of filters and filtration systems for heavyduty equipment. Its products are produced and sold in global markets, including Europe, North America, South America, India, China, South Africa, Australia and the Far East.

Through its Emission Solutions Business, Filtration develops systems to help customers meet increasingly stringent emissions standards. Fleetguard also designs and manufactures air filtration and exhaust systems for on- and off-highway applications, ranging from heavyduty equipment to small engine consumer applications.

Holset, whose financial results are included as part of the Filtration and Other segment, designs and manufactures turbochargers in five countries and has worldwide sales and distribution. Holset provides critical technology for engines to meet worldwide emission standards, including variable geometry turbochargers, and is the market leader in turbochargers for heavy-duty equipment.

#### **International Distributor Business**

The International Distributor Business was created in 2002 as a result of the growing size and importance of the retail distribution business. In 2003, International Distributor Business sales accounted for 10 percent of Cummins total net sales. The Business is a network of 17 Company-owned distributors and one joint venture that distribute the full range of Company products and services to end-users at 116 locations in 77 countries and territories. Through this network, trained personnel provide parts and service to customers. They also offer full service solutions, including maintenance contracts, engineering services and integrated products, which are customized to meet specific end-user requirements.

The business serves a highly diverse customer base consisting of various end-users in the specific geographic markets in which distributors are located. Each distributor Cummins owns or operates in a particular geographic region competes with other distributors and dealers that offer similar products within that region.

Because service is critical as a platform for customer solutions, the Business has opened new locations in Russia, Argentina, Italy, Belgium, the United Kingdom and China.

## Governance Structure and Management Systems

Cummins is governed by a nine-member Board of Directors. Among the directors, only Cummins Chief Executive Officer Theodore (Tim) M. Solso is a current employee of the Company. Board members are:

**Tim Solso –** Elected Chief Executive Officer and Chairman of the Board at Cummins in 2000, after serving as Company President since 1995. He joined Cummins in 1971, after earning his MBA degree from Harvard University. He is a director of Ball Corp. Inc., Irwin Financial Corp. and Ashland Inc. and is a member of the Board of Trustees at DePauw University.

**Robert J. Darnall -** Retired Chairman and Chief Executive Officer of Inland Steel Industries and a Cummins director since 1989. Darnall is a Director of Household International Inc., Pactiv Corp., Sunoco Inc. and United States Steel Corp. He also serves as the Director of both the Glenwood School and Junior Achievement of Chicago.

**John M. Deutch –** Institute Professor at the Massachusetts Institute of Technology since 1990 and a Cummins director since 1997. While on leave from MIT, he served as U.S. Director of Central Intelligence in 1995-96, U.S. Deputy Secretary of Defense in 1994-95 and as an Undersecretary of Defense in 1993-94. He is a director of Citicorp, CMS Energy, Raytheon Corp. and Schlumberger and is also a Trustee of Resources for the Future, the Urban Institute and Director of the Council on Foreign Relations.

Alexis M. Herman – Chairman and Chief Executive Officer of New Ventures Inc. and a director since 2001. She served as U.S. Secretary of Labor from 1997-2001. She currently serves on the Board of Trustees of Xavier University of Louisiana, is Chairwoman of the Coca-Cola Co.'s Diversity Task Force and Chair of the Toyota Diversity Advisory Board. She is a director at MGM/Mirage Inc. and Presidential Life Insurance Corp.

**Georgia Nelson** – President of Midwest Generation EME, LLC, an Edison International Company. She joined the Cummins Board in 2004. She serves as a director of Tower Automotive. She has been appointed by the Secretary of Energy in the last two administrations to serve on the Executive Committee of the National Coal Council. She is a trustee of the Manufacturers Alliance, a director of the Chicagoland Chamber of Commerce, trustee of the Peggy Notebaert Nature Museum and a member of the advisory committee of the Alexis de Tocqueville Society of the United Way-Chicago.

**William I. Miller –** Chairman and CEO of Irwin Financial Corp. and a director since 1989. Prior to moving into his current position, he was President of Irwin Management Co. from 1984-1990 and continues to serve on that company's board of directors. Miller also is Chairman of Tipton Lakes Co., a real estate development firm in Columbus, Ind. He is a Trustee of the Taft School in Watertown, Conn., and the National Building Museum in Washington, D.C.

**William D. Ruckelshaus –** Strategic Partner at Madrona Venture Group LLP and a director since 1971. He was Chairman of Browning-Ferris Industries from 1995-1999. He has held a number of appointed and elected governmental positions, including being a member of the Indiana House of Representatives, Assistant U.S. Attorney General, Deputy Attorney General, Administrator of the U.S. Environmental Protection Agency and Acting Director of the FBI. He is a director for Pharmacia Corp., Nordstrom Inc. and Weyerhaeuser Co.

Carl Ware – Retired Executive Vice President, Public Affairs and Administration for the Coca-Cola Co. He was named a director in 2004. He is a former member of the Atlanta City Council and served as its President from 1976 to 1979. He oversaw the merger of Clark College and Atlanta University in 1988, and has since served as Chair of the Clark Atlanta University Board of Trustees. He is chairman of the Nelson Mandela Invitational golf tournament to benefit the Nelson Mandela Children's Fund. He serves as a director of ChevronTexaco, Georgia Power, Coca-Cola Bottlers Consolidated, PGA TOUR Golf Course Properties and the Atlanta Falcons.

J. Lawrence Wilson – Retired Chairman and Chief Executive Officer of Rohm and Haas Co. and a director since 1990. He is board member at Vanderbilt University and a director of the Vanguard Group Investment Cos., MeadWestvaco Corp. and AmerisourceBergen Corp.

#### **Corporate Governance Principles for the Board**

The primary mission of the Board of Directors is to represent and protect the interests of the Company's stakeholders. In so doing, the Board has the legal responsibility for overseeing the affairs of the Company, and has certain specified powers and authorities with respect to corporate action provided by Indiana statutes.

The Board's oversight function is exercised through the election and appointment of competent officers. The Board relies on the integrity, expertise and competency of these officers in carrying out its oversight function.

The Board's responsibilities include the following:

- Adopt corporate governance principles consistent with the Company's Vision, Mission and Values.
- Exercise sound and independent business judgment with respect to significant strategic and operational issues, including major capital expenditures, diversifications, acquisitions, divestitures and new ventures.
- Advise senior management.
- Monitor
  - The performance of the Company
  - The performance of senior management
  - The effectiveness of internal controls and risk management practices
  - Compliance with all applicable laws and regulations
  - Communications and relationships with stakeholders

In discharging its fiduciary duties to act in the best interests of the Company, the Board considers the effect of its actions on shareholders, employees, suppliers, customers, communities and the interests of society as represented by our regulators. <u>Link here for the Corporate Governance Principles</u>.

#### **Committees of the Board**

The Board has seven standing committees: Executive Committee, Audit Committee, Compensation Committee, Governance and Nominating Committee, Finance Committee, Technology and Environment Committee and Proxy Committee. The responsibilities of the Audit, Compensation, Governance and Nominating, Finance and Technology and Environment committees are set forth in written committee charters approved by the Board. Link here for Committee Charters.

The Company complies with all NYSE and regulatory requirements concerning the membership of certain committees, including the requirements with respect to independence and financial expertise. The Governance and Nominating Committee reviews the committee structures of the Board and the membership of the various committees annually, and makes recommendations for any changes to the Board.

#### **Code of Business Conduct**

Cummins Code of Business Conduct serves as the blueprint for the Company's commitment to act with integrity, to do what is right and what we say we will do. This driving principle is reflected in all of the Company's dealings with customers, suppliers, shareholders, employees and the countries and communities in which it does business.

The Code addresses a number of issues, including:

- Providing safe and innovative products that meet or exceed appropriate emissions standards
- Competing vigorously, but with integrity
- Complying with all applicable governmental regulations and laws
- > Conflicts and potential conflicts of interest with suppliers and customers
- Proper treatment of others at work
- ➤ The value of diversity in the workplace
- Promoting a safe workplace
- Valuing the environment
- Contributing to the communities in which employees work and live
- Ensuring accuracy and openness in financial reporting
- Maintaining the confidentiality of persons who report violations of Company policies, procedures and rules of conduct, including sexual harassment and other improper conduct

The Code includes a section that deals with expectations regarding employees' treatment of suppliers and other business partners. The policies specifically address issues of conflict of interest, exchange of gifts and the need to conduct business with integrity at all times. <u>Link to the Code of Conduct.</u>

#### **The Cummins Operating System**

The Cummins Operating System (COS) helps develop common practices and approaches designed to improve customer satisfaction and profitability. This structured, measurable approach ensures that Cummins values and mission are faithfully executed across all departments and business units.

The COS consists of 10 operating practices that are common across the Company. It is supported by 10 common functions, each with a Functional Excellence framework. Employees are trained on the COS and Functional Excellence approaches and their importance to Cummins future success.

A key aspect of the Functional Excellence approach at Cummins involves promoting leadership across all business units and groups. Leaders at Cummins are measured on their ability to:

- Drive the organization toward the Vision by accomplishing the Mission
- Live and foster the Cummins core values of integrity, innovation, delivering superior results, diversity, global involvement and corporate responsibility
- Focus on customer success and deliver results
- Create an environment in which people can develop and contribute, and where championship teams flourish

#### **Government Relations**

Beyond Cummins manufacturing processes, the Company is involved in the setting of public policy to help establish processes that will lead to desired goals.

In August 2001, Cummins formed an office in Washington, D.C., to coordinate government relations activities for the corporation.

The office provides strategic insight and advice to Cummins business leaders on emerging government issues and activities, provides top-level access to government officials and key policymakers, develops and implements government relations strategies to achieve business objectives and advances business marketing objectives relative to government programs.

The office elevates government issues to senior management, ensures alignment with Cummins businesses and objectives, and identifies and aggressively resolves key government issues for the corporation. Specific areas of activity include energy policy; environment; tax; trade; transportation; government research and development; government markets; workplace and human resources issues; defense and homeland security and facility and infrastructure programs.

## Commitment to Stakeholders

Cummins recognizes that its duty goes beyond the bottom line. While Cummins must deliver value to shareholders, it also strives to responsibly and effectively serve all stakeholders – customers, employees, business partners and the communities in which it operates.

The Company actively engages all stakeholders, seeking feedback and doing its best to keep them informed of Cummins actions and performance. The Company's policies reflect a commitment to financial excellence, environmental stewardship, workplace equity, social responsibility and fair competition.

#### **Customers:**

Cummins is dedicated to exceeding the expectations of its customers, making products and providing support that give customers a competitive advantage in the marketplace.

Cummins works with key customers during the development and production of products to ensure that they are manufactured to the customers' satisfaction. For example, Cummins and DaimlerChrysler engineers worked closely on Cummins latest turbo diesel engine for the 2004 ½ Dodge Ram pickup truck, which was named one of the top 10 engines of 2004 by *Ward's Communications*, a leading industry magazine.

The Company also is committed to continuously improving quality while controlling costs. Cummins has an active and growing Six Sigma program that extends to working with customers and suppliers.

#### **Employees:**

Cummins has a long history of being an employer of choice. That reputation continues to this day and is reinforced by the Company's competitive salary and benefits offerings, training and career development opportunities and positive work environment.

Cummins employees enjoy a full slate of benefits, including innovative and competitively priced health-care coverage; pension and retirement programs; generous tuition reimbursement benefits for continuing education; access to world-class child development centers and more. These benefits also were made available to non-spousal domestic partners in 2000.

Cummins places a premium on its workers treating one another with respect and dignity. Treatment of others at work is a key component of the Company's Code of Business Conduct and is the subject of mandatory training for all new hires. Training and career development opportunities also play a crucial role in Cummins success and in the Company's efforts to attract and retain a top workforce. All new hires must attend mandatory training courses covering treatment of others; diversity; information and physical security; sexual harassment issues; the Cummins Performance Management System and the Cummins Operating System.

In addition, the Company's Powertrain program offers on-line training on a variety of subjects, ranging from business software applications to project management skills to interpersonal and communications skills to presentation and leadership skills.

Employees' performance and development plans are reviewed through the Cummins Performance Management System (CPMS). Through CPMS, employees work with their supervisors to create challenging work plans that reflect the goals of the Company and its individual performance cells. Employees receive quarterly formal feedback from supervisors and peers, in addition to a comprehensive annual evaluation.

Cummins also offers its employees myriad challenges and opportunities for growth within the Company as their skills and interests dictate. Cummins has a strong history of "growing its own" leaders, and employees regularly move freely from one part of the Company to another.

Employees are encouraged to seek out new challenges and to continually broaden their skill sets. High-potential employees are identified and offered comprehensive leadership training as part of the Company's ongoing efforts to develop its leaders from within.

#### **Business partners:**

Cummins has working relationships with distributors and suppliers across the world. Similarly, the Company acts as a supplier of components to a number of equipment manufacturers, and has been able to build strong bonds with its business partners.

The Company is proud of its efforts to earn "preferred supplier" status with customers such as PACCAR, a major truck manufacturer, and its standing as one of DaimlerChrysler's highest SCOREing (Supplier Cost Reduction Effort) suppliers.

#### **Shareholders:**

Returning value, in the terms of profits, rising stock prices and dividends, is the primary measure of a company's commitment to its shareholders.

For a three-year period, ending in mid-2003, Cummins primary businesses struggled through perhaps the worst slump in 30 years. Through that period, which saw Cummins lose money in 2001, the Company reduced costs and made the difficult decisions necessary to ensure that it would be well-positioned to take advantage of the inevitable economic recovery.

Even as the Company fought to pull itself out of the industry wide downturn, it continued to offer one of the more generous dividends – 30 cents a share per quarter – in corporate America. That dividend has remained unchanged for nearly five years, despite the turbulent economic climate.

Over the past year, Cummins efforts at cost control and quality improvement have paid off as its key markets have recovered with considerable speed. Cummins stock price has nearly doubled since June 2003 and in late 2004 hit a seven-year high, providing considerable return to shareholders.

Beyond returning financial value, Cummins believes strongly that it owes investors a

transparent window into its financial workings. Cummins goes to great lengths to keep the investing community up-to-date on the Company's performance and future outlook. Top executives hold quarterly teleconferences with industry analysts to discuss financial results. Company representatives also attend a number of investor conferences during the year, and meet or talk directly with individual analysts and investors on nearly a daily basis.

And for much of this year, Cummins has devoted significant resources to meeting the letter and spirit of the Sarbanes-Oxley regulations. The Company is well on its way to documenting, testing and certifying its financial controls and processes in accordance with Sarbanes-Oxley, and Cummins views the regulations as an important improvement tool in ensuring transparency in its financial reporting.

#### Communities:

Cummins and its employees are actively engaged in improving people's lives in the communities in which the Company operates.

The Company encourages volunteer efforts among its employees, a key supplement to Cummins corporate giving program, which makes funds available to worthwhile social causes – with an emphasis on education, employment, health issues and the environment -- in its communities. In addition, one of Cummins core corporate values is to ensure that the work we do contributes to a cleaner, healthier environment for everyone.

Those efforts are detailed in the "Social Responsibility" and "Environmental" sections of this report.

## Performance Indicators: Economic Performance

Over the last several years, the Company has launched new businesses, built partnerships and expanded its global reach, while keeping investments in new capital low. Cummins has introduced quality products that have been well received by customers. It continues to fund important development efforts even as it has tightened spending and worked to control costs.

Net sales were \$6.3 billion in 2003, 8 percent higher than sales of \$5.9 billion reported in 2002 and 11 percent higher than sales of \$5.7 billion reported in 2001. Cummins reported earnings before interest, taxes and cumulative effect of accounting change of \$181 million in 2003, compared with \$139 million in 2002 and a loss of \$44 million in 2001, including a \$126 million charge for restructuring, asset impairment and other non-recurring items. In 2003, Cummins reported net earnings of \$50 million, or \$1.27 per share, compared with net earnings of \$82 million, or \$2.13 per share in 2002 and a net loss of \$103 million, or \$2.70 per share in 2001. In 2002, net earnings included favorable income tax adjustments of \$57 million, or \$1.47 per share, related to the settlement of prior-year tax audits.

Cummins has provided shareholders with an attractive dividend. In 2003, the Company's stock provided an 80.2 percent total return for Cummins shareholders, including both share price appreciation and the compounding effect of the dividend. That return compared very favorably to total returns for major indices, including the Dow Jones Industrial Average at 28.3 percent, the Standard & Poor's 500 Stock Index at 28.7 percent and the Russell 2000 at 49.5 percent.

Detailed financial information can be found in the Company's filings with the U. S. Securities and Exchange Commission, which is available on the Investor Information section of the Company web site, <a href="https://www.cummins.com">www.cummins.com</a>.

## **Performance Indicators: Products**

Cummins products are designed to provide customers with the highest levels of performance, durability and dependability at the lowest cost of operation. At the same time, the Company is committed to meeting and exceeding clean air standards.

To achieve its commitment, Cummins has long been a pioneer in emissions research and development, investing in critical technologies to achieve future emissions standards while meeting the needs of the customer. The emissions solutions the Company uses today are the result of a technology plan set in motion in the early 1990s. This plan will carry Cummins through 2010 and beyond.

At the core of this road map was a strategic decision not to limit the Company's approach, but to develop the right technology for each application and market served. Different operating conditions and factors can and will influence the technology path for each market. While developing multiple emissions solutions has required a broader and deeper investment in research and development, the Company believes it will guarantee the Cummins customers optimum performance and reliability at the lowest possible cost of operation.

In 2003, the Company's research and development expenditures were \$187 million, or 3 percent of sales.

More than half of the \$2.1 billion spent by Cummins on research and development in the last 10 years has been invested in emissions reduction technologies. Nothing the Company does is more important.

A second, but no less important part of the Cummins clean diesel strategy has been to involve original equipment manufacturers as early as possible in the development and integration process. This open exchange of information and technology has been – and will continue to be – instrumental in developing high-performance products that deliver optimum performance and reliability at the lowest total cost.

#### **The Right Technology Matters**

Leadership in combustion research, fuel systems, air-handling systems, controls and aftertreatment allows Cummins to maintain its goal of maximizing customer value by providing the most appropriate emissions control solution for each market served.

In Europe, for example, new on-highway emissions standards (Euro IV) will be introduced beginning October 2005. Cummins will meet these standards using Selective Catalytic Reduction (SCR) aftertreatment. SCR is the best customer solution for this market because diesel fuel prices are very high in Europe and the use of urea to reduce fuel consumption makes economic sense. Urea is a chemical generally made from natural gas and commonly used in fertilizers.

For the U. S. on-highway truck market, Cummins has been the leader in the application of cooled Exhaust Gas Recirculation (EGR) technology. Cooled EGR is a very effective NOx

control. During combustion, EGR reduces flame temperatures, which, in turn, reduces NOx production. This allows the engine to be tuned for the best fuel economy and performance at lower NOx levels. EGR technology is the foundation for Cummins 2007 products and beyond.

From April 2002 through December 2003, Cummins cooled EGR engines accumulated more than a billion miles of service, providing low cost of operation and reliable operation.

#### **Emissions Regulations and Cummins Product Goals**

Since the 1970s, Cummins on-highway engines have been regulated by the EPA and similar regulatory agencies around the world for combustion emissions, including carbon monoxide (CO), hydrocarbons (HC), oxides of nitrogen (NOx) and particulate matter (PM).

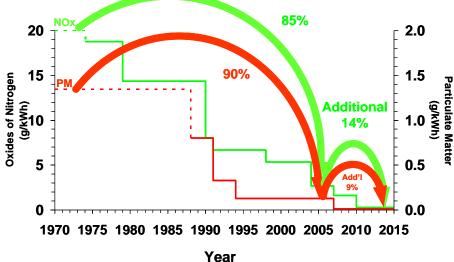
In general, diesel engines employ an oxygen-rich, fuel-lean combustion process that promotes complete combustion of the fuel. Since CO and HC are results of incomplete combustion, diesel engines produce low CO and HC emissions due to their high fuel efficiency.

Cummins works closely with regulatory bodies to seek emission reductions that are necessary, yet are technologically feasible while meeting customers' needs.

When compared to emissions from unregulated engines, today's on-highway diesel engines emit 90 percent less PM and nearly 90 percent less NOx. Cummins is required to reduce PM and NOx from these diesel engines by the end of the decade to standards that are 99 percent less than the unregulated levels.

**U.S. On-highway Emission Standards** 

# 85%



18

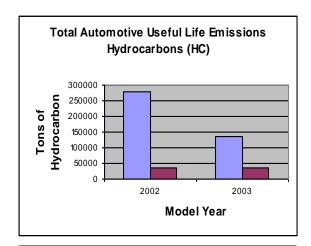
Off-highway engines produced by Cummins are also subject to emission standards. While the combustion process for off-highway engines is fundamentally the same as for on-highway engines, the emission control strategies are not interchangeable because of the broad horsepower range, unusual applications, and duty cycles required for off-highway products.

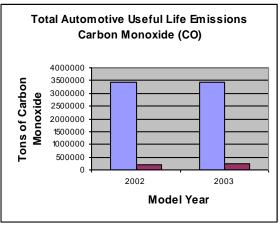
Between 1995 and 2003, there has been a 70 percent reduction in NOx emissions from off-highway engines. Between 2011 and 2015, off-highway engines will be controlled to the same level of compliance as the on-highway engines. By 2015, NOx emissions from off-highway engines will be 98 percent lower than they were in 1995.

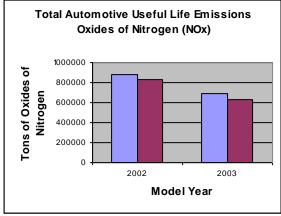
For the 2003 model year, the Company continued to meet and exceed its requirement for emissions compliance across its product line.

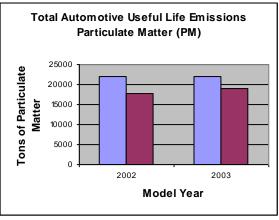
## Cummins Engine Emissions Compared To Standards established by the EPA

■ Estimated Maximum Allowable Emissions by EPA Standards
■ Estimated Actual Emissions from Cummins Engines









Cummins also participates in a regulatory program called "Averaging, Banking and Trading (ABT)." This program allows emission credits to be generated and "banked" by a company whose products generate emissions that are lower than the regulated level. These banked credits may be applied to other engines whose emissions are higher than the standard. However, some credits are discounted by a certain percentage depending on engine type and ABT program rules. As a result of this discounting process, a portion of the emissions credits go unused by the Company, and are thus a benefit to the environment. In 2003, Cummins donated 1,412 tons of automotive NOx and 1,330 tons of off-road NOx to the environment.

#### The 2007/2010 EPA Emissions and Fuel Rule

Looking ahead to 2007-2010, emission requirements change dramatically for heavy-duty trucks over this period. Both NOx and particulate matter are reduced by 90 percent from 2004 levels.

The EPA has allowed for a NOx phase-in from 2007 through 2009. During this time, 50 percent of the engines produced must meet the stricter, 2007 NOx standard, while 50 percent may continue to meet the 2004 standard.

The particulate matter requirement is not phased in, and thus all engine production is required to be in compliance with the new standard beginning in January 2007.

By 2010 all heavy-duty diesel engines are expected to meet the stringent NOx standard of 0.2 grams per brake-horsepower hour (g/bhp-hr) and the stringent PM standard of 0.01g/bhp-hr.

EPA regulations will require advanced on-board diagnostics with additional sensors to monitor the effectiveness of emission-control systems on the engine.

**Ultra-Low Sulfur Fuel:** In addition to the new exhaust emission standards and in support of them, the EPA is lowering the limit for diesel sulfur from 500 parts per million (ppm) to 15 ppm. The new fuel standard will be phased in beginning Sept. 1, 2006, (80 percent participation) through Sept. 1, 2010 (100 percent participation). The EPA's on-going monitoring of refineries' progress indicates 15-ppm fuel will be widely available. Ultra-low sulfur fuel has several beneficial effects. It inherently produces less particulate matter from combustion, so it is a particulate matter control strategy for all equipment in use.

**Aftertreatment Solutions:** While cooled EGR is an "in-cylinder" technology that can reduce NOx, there are several aftertreatment solutions that can achieve reduced NOx levels by treating the exhaust gases after they leave the engine. These include Selective Catalytic Reduction (SCR), NOx adsorbers and lean-NOx catalysts.

SCR systems use a chemical reductant, in this case urea, which converts to ammonia in the exhaust stream and reacts with NOx over a catalyst to form harmless nitrogen gas and water. Urea is a benign substance that is generally made from natural gas and widely used

in industry and agriculture. SCR systems are being proposed today for mobile on-highway applications.

The NOx adsorber catalyst is a new technology developed in the late 1990s. It uses a combination of base metal oxide and precious metal coatings to effect control of NOx. The base metal component (for example, barium oxide) reacts with NOx to form barium nitrate – effectively storing the NOx on the surface of the catalyst. When the available storage sites are occupied, the catalyst is operated briefly under "rich" exhaust gas conditions. This releases the NOx from the base metal storage sites and allows it to be converted over the precious metal components to nitrogen gas and water vapor.

Diesel engines normally operate with an excess ratio of air-to-fuel or a "lean" operation. Under lean operating conditions, it is extremely difficult to control NOx with a catalyst because of the excess of oxygen in the exhaust stream. Under lean operating conditions, the NOx is simply stored in the catalyst. Regeneration is required to release and convert the NOx to nitrogen gas.

Regeneration of the NOx adsorber catalyst requires elimination of all excess oxygen in the exhaust gas for a short period of time. This can be accomplished by operating the engine in a "rich" mode, or by injecting fuel directly into the exhaust stream ahead of the adsorber to consume the remaining oxygen in the exhaust. Either way, the engine and catalyst must be controlled as a system to determine exactly when regeneration is needed, and to control the exhaust parameters during regeneration itself.

Sulfur poses challenges for NOx adsorbers. In addition to storing NOx, the adsorber catalyst also will store sulfur, which reduces the capacity to store NOx. Although fuel sulfur levels are being reduced in 2007 to 15 ppm, sulfur at any level poses challenges and requires the engine design to provide for a periodic de-sulfation process to remove sulfur from the catalyst. This is similar to the NOx regeneration process, but at higher temperatures.

A lean-NOx catalyst uses unburned hydrocarbons to reduce NOx over a catalyst. The catalyst may contain precious metals such as platinum. The successful operation of a lean-NOx catalyst requires continuous injection of fuel upstream of the catalyst. The NOx conversion efficiency depends on many factors, but typical values are in the range of 10 percent to 25 percent in use over practical duty cycles. Lean-NOx catalysts do not have adequate NOx reduction capability for 2007 applications. However, lean-NOx catalysts are often an excellent option for retrofits. They are relatively easy to install and integrate with existing engine and vehicle systems.

**Particulate Matter Reduction:** While previous reductions in particulate matter (soot) emissions have been achieved through engine combustion improvements and oxidation catalysts, the stringent 2007 particulate standards will require very effective particulate aftertreatment.

The active diesel particulate filter is the only current technology option for meeting the U. S. 2007 particulate standards. This is the technology Cummins will employ to reduce PM emissions to the levels necessary in 2007.

A typical filter consists of an array of small channels through which exhaust gas flows. Adjacent channels are plugged at opposite ends, forcing the exhaust gas to flow through the porous wall, capturing the soot particles on the surface and inside pores of the media. Soot accumulates in the filter, and when sufficient heat is present a "regeneration" event occurs, oxidizing the soot and cleaning the filter.

#### **Meeting the 2007 Emissions – The Cummins Solution**

The Cummins technology plan for on-highway, heavy-duty applications in 2007 is straightforward, and includes the following:

- Cummins is well on its way to developing engines to meet the 2007 EPA standards with prototype engines already in the field for test. The proven products in operation today are the base platform for 2007.
- Cummins is the only engine manufacturer with wholly owned subsidiaries providing technology for air-handling (Holset) and aftertreatment systems (Fleetguard Emission Solutions). As a result, the Company is able to practice system integration across all critical components and subsystems.
- Cummins will continue to use cooled EGR as the base technology for NOx reduction.
- Cummins will use a particulate filter to achieve the 90 percent reduction in particulate matter.

#### **Aftermarket: Emission Solutions**

Cummins has leveraged its research and product development with Cummins technology expertise to create businesses like Emission Solutions. This Filtration Business subsidiary, which specializes in filtration and exhaust products and systems for diesel engines (9-7000 horsepower), was created in 2002. It is providing integrated technologies for retrofitting engines in service with a variety of aftertreatment products.

Emission Solutions offers a diesel oxidation catalyst which can reduce particulate matter 20 to 50 percent and carbon monoxide and hydrocarbons by more than 90 percent.

The Filtration Business, through its Fleetguard brand, also offers a variety of environmentally friendly products including the following examples:

- Fleetguard's ES coolant line can last the lifetime of an engine when used with certain other products – ensuring the use of less coolant over the life of the engine.
- Venturi, LF and Centriguard filters remove up to three times the contaminant versus full synthetic fiber. This finer filtration extends oil life by 35 to 100 percent and reduces wear on engine parts.
- The Enviroguard open crankcase ventilation system filters crankcase blowby gases to reduce aerosol oil emissions by more than 65 percent. It also reduces oil drip by 99 percent.
- The Fleet-Tech fuel conditioner inhibits corrosion to keep fuel injectors functioning at optimal levels for maximum combustion efficiency and fuel economy

improvements. Increased fuel economy means reduced demand for fuel; lower emissions of HC, NOx, CO and particulate matter and reduced fuel costs.

#### **Going Beyond Requirements in Other Countries**

Cummins meets or exceeds emission regulations in every country that it operates. In South Africa, where there are no emission regulations, Cummins sells EPA certified 1998/1999 engines. Similarly, in Taiwan, emissions regulations require EPA 1994 standards, yet Cummins sells EPA 1999 certified engines. In Mexico, the Company sells EPA 2004 certified engines, although the law requires EPA 1999 certified engines.

Cummins has worked closely with the Chinese government and original equipment manufacturers to introduce "green engines" to China. Although China requires engines sold in China to meet Euro II standards, more than 1,500 Euro III automotive engines were sold in China in 2003 either through Cummins or its joint ventures. These diesel engines are currently being used in Beijing and Shenzhen, as well as a famous scenic area known as the Jiu Zaigou Tourism Zone. In addition, though China has no countrywide emission regulations for industrial applications, Cummins engines comply with EPA 1996 or 1998 standards, depending on the model.

#### **Recycling Cummins Products**

The Company's environmental focus extends to products beyond their initial useful life. Cummins ReCon, for example, is a business that renovates and recycles engine blocks, crankshafts, cylinder heads, turbochargers, water, oil and fuel pumps, fuel injectors, aftercoolers, oil coolers, rocker housings, connecting rods and other parts. On average, the ReCon Business salvages about 60 percent of an engine's parts. The remaining 40 percent is scrapped for quality reasons. Since scrapped material is sold to recyclers, virtually 100 percent of an engine is either salvaged or sold to companies that recycle the metal.

#### **Future Products**

**Fuel Cells:** Cummins environmental commitment goes beyond the development of current products. It also encompasses areas where advanced research may result in technologies applicable for products well into the future. Such is the case with fuel cell research in Cummins Power Generation. The Department of Energy (DOE) has awarded Cummins a contract to develop and commercialize a 10-kilowatt (kW) solid oxide fuel cell system for a wide range of commercial applications. Cummins partner in this endeavor is SOFCo, a subsidiary of McDermitt International. Fuel cells use fossil fuels in an efficient and environmentally friendly manner and produce direct-current electricity without combustion. The only waste products are water vapor and a small amount of carbon dioxide.

**Light-Duty Diesel Engines**: The synergy of combustion and aftertreatment capability has given rise to the success of a light-duty diesel research effort designed to meet performance and emission requirements for the latter part of this decade. Through a project funded in part by the DOE, Cummins light-duty diesel engine was the first to achieve the stringent Tier II (Bin 5) emission standards for a product in its class.

A DOE report released in August 2004 (*Future Potential of Hybrid and Diesel Powertrains in the U.S. Light-Duty Vehicle Market*)<sup>1</sup> forecasts growth of 4 to 7 percent in light-duty diesel vehicles in the U.S. market by 2012. Typically, diesel engines are 20 to 40 percent more efficient than comparable gasoline engines. Previous studies by the DOE have found that a gradual 20 percent penetration of diesel vehicles by 2020 would save the U.S. 350,000 barrels of oil each day.

Diesel technology accounts for about 40 percent of all new vehicles in Europe. While nowhere near that penetration today, American consumers will have more diesel choices than ever before. Modern clean diesel technology can now available in four key market segments – from economy cars and family station wagons to luxury sedans and SUVs.

#### **Engine Innovations Beyond Diesel Engines**

Cummins has been in the business since 1988. Cummins is part of a joint venture with Westport Innovations Inc., an alternative fuels engine technology company. Cummins Westport develops and markets the world's widest range of high-performance, low-emission engines for transit and commercial vehicles, as well as advanced alternative fuel system technologies for electrical power generation. In 2003, approximately 300 natural gas engines produced by Cummins Westport were sold to China. They are being used in Beijing as well as western cities like Urumuqi, Chengdu, Xi'an and Chongqing.

Cummins also offers diesel engines that can be fitted to a hybrid application. In 2002, the New York City Transit Authority added 125 hybrid diesel buses powered by Cummins engines to its fleet. In early 2004, New York City ordered 200 hybrid diesel buses in addition to its initial order. While Cummins has the ability to provide engines that are part of a hybrid system, the greatest barrier to selling hybrids is customer demand. Many metropolitan areas are interested in testing hybrid buses, yet few are changing significant portions of their fleets over to hybrids as New York City has.

#### **Supporting Independent Health Research**

In the early 1980s, Cummins anticipated the need for sound, independent research on the health effects of mobile source emissions. In response to that need, the Company – together with the EPA – was instrumental in chartering the Health Effects Institute (<a href="www.healtheffects.org">www.healtheffects.org</a>), which provides unbiased information on the health effects of motor vehicle emissions. This institution receives equal funding from the EPA and the motor vehicle industry. Today, Cummins continues to support this important work, even as exhaust emissions have improved considerably since the Institute was established. In addition, Cummins supports various efforts at renowned research institutions that focus on the health effects of mobile source emissions.

#### **Global Climate Change**

Cummins is a member of the Business Round Table Climate RESOLVE (Responsible Environmental Steps, Opportunities to Lead by Voluntary Efforts), whose members have

24

<sup>&</sup>lt;sup>1</sup> Greene, David L., Duleep, K.C., McManus, W., August 20, 2004.

committed to reduce or offset greenhouse gas emissions. The Climate RESOLVE initiative will give the Company another avenue to partner with the government to find practical, cost-effective ways to manage greenhouse gas emissions.

#### **Counsel in Developing Products and Meeting Standards**

In developing products to meet various standards, as well as the demands of its customers, Cummins seeks advice and counsel from its Science and Technology Council and the Technology and Environment Committee of its Board of Directors.

Cummins Science and Technology Council, formed in 1993, has given the Company access to some of the country's leading scientific thinkers and policymakers from the worlds of academia, industry and government.

The Cummins Science and Technology Council members regularly discuss the future of the internal combustion engine and the use of alternative power sources. As a result, Cummins already has pursued alternative energy options, including clean natural gas bus engines and power generation units that harness waste gases such as methane available in landfills.

The Science and Technology Committee members are:

**Dr. John M. Deutch (Chairman) –** Institute Professor at Massachusetts Institute of Technology, former Provost and Dean of Science at MIT, CIA Director and Assistant Secretary DOE.

**Dr. Harold Brown, Counselor –** Center for Strategic and International Studies, retired Cummins Director, former Secretary of Defense and President of CalTech.

**Dr. George M. Whitesides --** Mallinckrodt Professor of Chemistry at Harvard University.

**Dr. Michael Oppenheimer --** Albert G. Milbank Professor of Geosciences and International Affairs at Princeton University and Director of the Program in Science, Technology and Environmental Policy at the Woodrow Wilson School.

**Dr. Ernest Moniz --** Professor of Physics at the Massachusetts Institute of Technology.

**Dr. Anita K. Jones --** Lawrence R. Quarles Professor of Engineering and Applied Science University of Virginia and Vice Chair of the National Science Foundation.

**Dr. Gerry L. Wilson --** Professor of Electrical Engineering and Mechanical Engineering, Massachusetts Institute of Technology, formerly Dean of Engineering at MIT.

The Technology and Environment Committee of the Cummins Board of Directors advises the management and the technical leadership of Cummins regarding:

Technology strategy and planning

- Significant research and technology projects and tools
- Major new product programs
- Environmental policy and strategy within the public arena as well as an internal action plan

Its membership includes the following Directors: John M. Deutch, Chair, Alexis M. Herman, Georgia R. Nelson, William I. Miller, William D. Ruckelshaus and Carl Ware.

The committee also encourages collaboration between Cummins and the external technical and environmental community. It reviews the technology plans of the Company.

#### **Harnessing Waste Landfill Gases**

Cummins Power Generation has introduced a new low-heat generator that is specifically designed to run on the diluted methane gas mixture produced by natural decay in landfills, sewage digesters or methane emitted from coal seams. The new generator runs at 1570 kW (operating at 50 Hz) or 1750 kW (operating at 50 and 60 Hz). In North America, that is enough electricity to continuously power approximately 350 houses.

Since methane gas released to the atmosphere has about 20 times the greenhouse effect of carbon dioxide, burning methane in a generator set can reduce its environmental impact by a factor of about 20.

The new low-Btu generator runs at a landfill site in Shrewsbury, England, a waste water digester site in the Canary Islands, as well as at the Viridor Waste Management landfill near Edinburgh, Scotland.

At the Viridor landfill, Cummins Power Generation is developing a 3.5 MW power plant (enough to continuously power 700 houses) using two low-Btu generator sets running on methane from the landfill. The electricity produced at the site runs a nearby cement works. An additional pair of low-Btu generators will be installed during the next two years to take advantage of the site's estimated 20-year supply of methane.

#### **Pursuing Pig Power**

Cummins Western Canada provided the Cudworth bio-gas cogeneration project with four 30-kW Cummins Power Generation bio-gas, micro-turbine generators. The Cudworth project is a "green power" effort that converts hog manure into a low-grade methane fuel that is converted into heat and electrical power. The methane gas is produced by an anaerobic digester designed and installed by Clear Green Environmental of Saskatoon, Canada. The digester and cogeneration power plant produces enough electricity to power 30 to 40 homes, as well as provides the following benefits:

- Eliminates the potential of ground water contamination by manure waste management
- Provides an odor-free hog barn
- Generates free heat and power
- Receives greenhouse gas credits for CO<sub>2</sub> reduction

 Produces sellable fertilizer and organically friendly compost during the complete digestion process

#### A First for the Antifreeze Industry

Fleetguard in January 2004 announced that had become the first coolant/chemical supplier in the industry to offer recycled coolant as part of its heavy-duty antifreeze product line. Fleetguard has entered into a collaborative agreement with EET Corp., an antifreeze recycler headquartered in Harriman, Tenn., to supply the high quality recycled product.

Used antifreeze contains a variety of components, some benign and some detrimental to the environment, such as water, glycol, soluble salts, oil, dye, metal and trace hydrocarbons. When contaminated with lead and benzene from vehicle engines, used antifreeze poses a danger to the environment unless it is safely recycled.

Fleetguard and EET are working together to produce a recycled product that meets the quality standard required by our customers and in the process reduces the amount of harmful materials in the environment.

#### The Centinel Oil System

The Cummins Centinel Advanced Engine Oil Management System allows engines to go 525,000 miles between oil changes and 100,000 miles before changing the filter. This innovative system removes a small amount of used oil and sends it to the fuel tank. The used oil is then blended with the fuel and burned during normal combustion.

Simultaneously, Centinel adds the same amount of new oil into the engine from a make-up tank. The result is a better-protected engine that runs more smoothly with less time and money spent on oil system maintenance. This system reduces the volume of oil waste. A Cummins ISX Engine with Centinel would drain only 12 gallons of oil at the 525,000 mark in its life.

## Performance Indicators: Facilities

#### **Environmental Policy**

Cummins strives to exercise global citizenship by making environmental stewardship and long-term sustainability a priority in our daily operations. Consistent with this philosophy, Cummins formally implemented a Corporate Safety and Environmental Policy in November of 2001.

Cummins is committed to fostering a cleaner, healthier, and safer environment in every community in which our people live and work. All our facilities will employ the Cummins Safety and Environmental Management Systems, which are designed to protect our personnel and the environment, to preserve natural resources, and to prevent harm to local communities. Our approach in this endeavor is multi-faceted. We will systemically and aggressively assess operations that have the potential to harm individuals or impact the environment. We will also set substantial and measurable objectives in managing safety and the environment. Finally, we will periodically review our progress against our objectives. Sustainable improvement is an essential element of both systems and is aimed at contributing positively to personal safety, environmental well being and conservation of natural resources.

Cummins will continue to implement management programs to ensure that our products, service and activities always comply with local laws and Company standards established to protect health, safety and the environment. We are committed to minimizing potentially harmful effects resulting from our operations and to implementing improvements associated with the prevention of pollution, injury and illness.

This Health Safety and Environmental Policy will be applied throughout Cummins via a set of documented companywide and local policies and procedures. It will be communicated to all employees at least annually. Upon request, the policy will be made available to the public.

#### Safety and Environmental Council

In 2003, Cummins formed a Safety and Environmental Council to better align these important priorities with the Company's Business Unit structure. The council includes the manufacturing, safety and environmental leaders from across the Company's four business units and from the corporate staff.

The Council, with guidance from the Cummins Policy Committee, meets quarterly and is responsible for building a best-in-class safety and environmental organization across Cummins worldwide entities. The group develops, reviews and recommends improvement initiatives at all levels of the organization, with the goal of minimizing the global impact of the Company's operations.

Among these initiatives are a focus on facility registration to the ISO 14001 standard and implementation of the elements of Cummins existing health, safety and environmental management systems (HSEMS). The Council also leads the sustainability effort, has established the facilities that will report environmental measures and has approved additional reporting criteria in support of the effort.

#### ISO 14001 Registrations

Cummins is committed to using ISO 14001 as a means to effective environmental management as the Company strives to become a worldwide leader among manufacturers in protecting the environment.

Corporate level procedures were developed and incorporated within the Cummins HSEMS to serve as a framework for the organization's conformance to the ISO 14001 standard. A key component of the HSEMS framework is a worldwide "enterprise" approach to ISO 14001 registration. This allows Cummins to identify superior environmental management programs at individual sites and implement those programs throughout Cummins worldwide.

By the end of 2004, Cummins had 29 manufacturing facilities and the corporate entity registered to the ISO 14001 standard. Ten of those entities are registered within the worldwide Cummins Enterprise registration.

In 2005, Cummins sites in the United Kingdom, Canada and Mexico will be added to the group of ISO 14001 registered facilities.

#### **Environmental Management System Registration to ISO 14001**

Site	Reg. Year	Location	Business Unit
Daventry Engine Plant	2001	UK	EBU
Fleetguard – Quimper	2001	France	FBU
Holset – Huddersfield	2001	UK	PGBU
Darlington Engine Plant	2002	UK	EBU
Nelson – Mineral Point	2001	USA	FBU
Cummsa SLP	2002	Mexico	IDBU
Nelson – Viroqua	2002	USA	FBU
Nelson – Arcadia	2002	USA	FBU
Nelson – Wautoma	2002	USA	FBU
Cummins Industrial Center/Cummins Komatsu Engine Co.	2002	USA	EBU
Newage – Stamford	2002	UK	PGBU
Holset – Charleston	2002	USA	PGBU
Nelson – Neilsville West	2002	USA	FBU
Dongfeng Cummins Engine Co. Ltd/Cummins Xiangfan Machinery Co. Ltd	2002	China	IDBU
Cummins Original Equipment Reman	2003	Canada	EBU

Tata Cummins Limited	2003	India	IDBU
Fuel Systems Plant/General Office	2003	USA	EBU
Cummins Brazil Ltd.	2003	Brazil	EBU
Midrange Engine Plant	2003	USA	EBU
Fleetguard – Lake Mills	2003	USA	FBU
Nelson – Black River Falls	2003	USA	FBU
Cummins Corporate Enterprise	2003	Worldwide	Corp
Environmental Management System			
Nelson – Bloomer	2003	USA	FBU
Nelson – East	2003	USA	FBU
Tata Holset	2004	India	PGBU
Kuss	2004	USA	FBU
Wuxi – Holset	2004	China	PGBU
Consolidated Diesel Company	2004	USA	EBU
Jamestown Engine Plant	2004	USA	EBU
Cummins Power Gen – Fridley	2004	USA	PGBU
Diesel ReCon Co. – Juárez/El Paso	2004	USA	EBU

Sites listed in blue represent enterprise registrations

#### **Corporate Environmental Objectives and Targets**

#### **Greenhouse Gas Emissions and Climate Strategy**

One element of Cummins environmental data gathering and reporting is the evaluation of facility emissions specific to addressing concerns of global warming. Our facility greenhouse gas (GHG) emissions are calculated directly from utilities and fuel use information provided by sites participating in the sustainability reporting.

A corporate objective and associated targets were developed related to the Company's GHG emissions at our manufacturing facilities. These targets represent Cummins initial steps toward the development of a formal climate strategy. As an active participant in the Business Roundtable Climate RESOLVE program, Cummins acknowledges the role it must play in controlling its own emissions. The Company's initial targets address the need to establish a GHG baseline footprint as the basis for measuring ongoing emissions reductions.

The Company's objective is to GHG emissions from its manufacturing operations worldwide. To meet this objective, the Company has set targets, including participation in the Business Roundtable Climate RESOLVE program; establishing base year/baseline emissions (defining organizational and operational boundaries); implementing a process to facilitate the accumulation and reporting of relevant GHG data and establishing a formal GHG reduction goal.

#### **Reporting Scope**

Cummins has been collecting environmental performance data selectively from its manufacturing facilities since 1999. To improve the data associated with monitoring its environmental performance, Cummins more than doubled the number of reporting facilities to 38 in 2003, compared to the 2001-2002 timeframe covered in Cummins first Sustainability Report.

Expansion of the reporting effort encompasses each of the Cummins manufacturing divisions worldwide, and now includes facilities in Brazil, India, France, the U.K., Mexico and the United States.

Cummins tracks a wide range of facility data to measure the potential environmental impacts of its operations. The data compiled for this report represent a substantial majority of Cummins larger manufacturing facilities, including all of the Company's engine assembly plants, the corporate office building and the larger non-manufacturing facilities.

Because of the substantial increase in the number of reporting sites, drawing meaningful company-wide comparisons against the 2001-2002 data is difficult. As a result, data from the previous reporting years are not included in this report. Still, individual sites, business units and the corporate entity continue to use earlier data as a baseline for determining progress.

A general description of the operations by business unit, and their critical environmental activities is provided for background.

#### **Cummins Engine Business**

Within the Cummins Engine Business (EBU) manufacturing facilities employees conduct product design, research and development, engine manufacturing and engine and component reconditioning. Engine assembly facilities perform engine block and component machining, assembly, painting, alkaline bath parts washing and engine performance testing. Product design and engine testing are the primary operations in the research and development technical centers where production processes are limited.

Engine testing is conducted in stationary test stands or cells, where product performance information is measured as engines run at various duty cycles. Test cells also are used for certification testing to ensure products meet emissions requirements. Rebuild/reconditioning facilities perform engine tear-down and reassembly, using alkaline parts washing processes.

#### **Cummins Filtration Business (Fleetguard)**

Cummins Filtration and Other Business Unit (FBU) facility operations primarily involve filtration and exhaust product design, research and development, filter and exhaust component assembly and product distribution and warehousing. Filter and exhaust component assembly facilities perform metal stamping and component machining, welding, product assembly, painting and performance testing.

#### **Cummins Power Generation Business**

Cummins Power Generation Business (CPG) facility operations primarily involve product design, research and development, alternator manufacturing, assembly of generator sets,

switchgear and controls and product testing. Alternator manufacturing facilities perform component machining, lamination stamping, rotor and stator winding, resin impregnation and alternator assembly. Assembly facilities perform housing fabrication, genset assembly, switchgear and controls assembly, painting, alkaline bath parts washing and genset performance testing. Product design and performance testing are conducted in the research and development technical centers. Genset testing is conducted in stationary test stands/cells, where product performance information is measured while gensets are run at various duty cycles. Test cells also are used for certification testing to ensure products meet emissions requirements.

#### **Waste Streams**

The primary waste streams generated at Cummins manufacturing facilities include waste paint and associated materials, paint filters, sludges and filter cake, machine coolant and used oil and resins. Metals are salvaged for off-site recycling, as are used oils. Other waste streams include filter media and resins. At most facilities, machine coolant is recycled until ineffective and ultimately added to the wastewater stream for pretreatment prior to discharge to public treatment works.

#### **Environmental Performance Measures**

#### **Materials Other than Water**

Data reported by our facilities quantifies specific categories of process materials used most commonly in Cummins manufacturing processes. Fuels data represent a comprehensive total from all reporting facilities. Other process material totals are incomplete.

Diesel Fuel – 9,421,970 gallons
Natural Gas – 1,153,178,133 cubic feet
Propane – 1,891,873 cubic feet
Oil 1,110,160 gallons
Paint – 233,427 gallons
Coolant – 433,450 gallons
Solvent/thinner – 92,166 gallons
Acids – 80,900 gallons
Caustics – 230,730 gallons

#### **Direct and Indirect Energy Use**

Cummins manufacturing operations use electricity, natural gas, diesel and propane as the primary sources of energy. The energy data provided below represent electricity used at the Company's facilities to generate power for manufacturing operations, power produced and sold to the regional grid and that used for facility heating and cooling purposes. Emissions calculations on the basis of electrical energy account for its ultimate source, so although the total KwH are reflected in this data, category power derived from hydroelectric and/or nuclear sources are not applied to emissions factors.

**Direct:** (totals in kwh and gigajoules) Fuel Oil: 111,960,811 kwh / 403,059 GJ Natural Gas: 344,800,262 kwh / 1,273,801 GJ Propane: 523,333 kwh / 1,884 GJ Electricity: 68,439 kwh / 246 GJ

#### Indirect:

Electricity:

572,855,657 kwh / 2,067,401 GJ

#### **Total Water Use**

1,048,097,963 gallons / 3,967,051 cubic meters

The water use data were derived from annual totals for each of the reporting facilities and includes water used for industrial and consumptive purposes.

#### **Greenhouse Gas Emissions**

Totals are reported in metric tons.

Direct		$CO_2$
	Fuel Oil	28,485
	Diesel	67,625
	Natural Gas	63,080
	Propane	362

Indirect CO<sub>2</sub> Electricity 489,749

CO<sub>2</sub> totals were derived using World Resources Institute GHG Emissions Protocols and/or EPA AP-42 Compilation of Air Pollutant Emissions Factors.

#### **Ozone Depleting Substances**

In May 1995, Cummins implemented a policy that stationary equipment using chlorofluorocarbons (CFCs) would no longer be purchased by Cummins. Equipment already in place would be considered for conversion or replacement depending on its age and repair costs.

As a result of this policy, Cummins has replaced more than 50 percent of its equipment containing ozone-depleting substances.

#### **Significant Air Emissions**

Direct emissions to air from facility operations; all data is in metric tons.

NOx – 1,998 CO – 443

PM - 135

CO<sub>2</sub> - 159,207

**VOCs - 726** 

Data for NOx, CO, PM and  $CO_2$  are based on diesel fuel used in product testing applications and No. 2 fuel oil, propane and natural gas used in boilers and furnaces, and were derived using EPA AP-42 Compilation of Air Pollutant Emission Factors, 1996. It should be noted that AP-42 emissions conversions used for large diesel engines are based on obsolete technology. Although we have not used conversion factors developed from our own emission testing, it is certain that the data presented here based on AP-42 is overstated. VOC totals are based on throughput and VOC content of the significant sources at each reporting site; however, total emissions for this parameter are not considered to be comprehensive.

#### **Total Amount of Waste by Type**

Cummins has active recycling programs. Proceeds from recycling efforts at some locations are used to fund employee enrichment programs or are donated to charitable causes within the local community.

Wastes disposed are closely tracked at the facility level to meet environmental regulatory requirements, to quantify materials for which monetary returns are available on a weight or volumetric basis and for environmental performance measures. Waste and recycled material quantities are presented in aggregate. Data have been rounded to the nearest whole number. Categories are defined and materials quantified as follows:

**Landfilled Industrial Waste:** Includes industrial wastes disposed in landfills, such as sludges, filter cake, grinding swarf (grit and other solid impurities that build up in machine coolant) and related material that is concentrated and accumulated from specific manufacturing processes, but is not specially regulated due to toxicity.

3,748,352 pounds / 1,704 metric tons

**General Refuse:** These wastes are not comprehensively quantified here because of a lack of availability of weight-based measures across the organization.

17,631,809 pounds / 8,014 metric tons

**Recycled Metals:** Metals derived predominantly from machining and salvage operations.

Iron and Steel: 168,429,671 pounds / 76,559 metric tons

Aluminum: 1,608, 526 pounds / 731 metric tons

Copper, Brass and Other: 698,900 pounds / 318 metric tons

Other Recycled Materials: These include shop and office materials reprocessed for re-use outside the facility. Data for recycled materials are understated because at several locations volumes and load weights are unavailable, unreliable or represent aggregate vs. individual material totals.

Cardboard: 10,892,085 pounds /4,951 metric tons

Paper: 965,729 pounds /439 metric tons

Wood: 13,863,495 pounds / 6,302 metric tons

Plastic: 398,021 pounds / 181 metric tons

**Re-used Liquid Wastes:** These represent estimated quantities of industrial process wastes reclaimed for re-use or otherwise re-used based on Btu content as feedstock in cement kilns or blended fuels. These include oil, coolants, solvents and thinners and residual fluids primarily from painting processes, including selected wastes that are regulated as hazardous as defined within the U.S. Resource Conservation and Recovery Act.

1,559,622 gallons / 5,903 cubic meters

**Significant Discharges to Water:** The discharges listed below represent an estimated quantity of industrial process and sanitary wastewater and do not include water loss from heating and air-conditioning systems.

757,016,449 gallons / 2,865,307 cubic meters

#### Significant Spills of Chemicals, Oils, and Fuels

Cummins has not experienced a significant spill originating from any of its facilities within the 2003 sustainability reporting timeframe.

#### **Incidents and Fines for Non-compliance**

#### Fleetguard - Arcadia, Wisconsin

The Arcadia facility was issued a Notice of Noncompliance (NON) by the Wisconsin Department of Natural Resources (WDNR) on June 10, 2003, arising from the self-disclosure of discoveries made during an internal audit of the facility. The situation involved operation of an air emissions source outside the parameters outlined in the air discharge permit. A modification to the permit had been previously sought with the state, but the matter had not yet been addressed by the authorities at the time of the audit. As a result, an additional permit modification was submitted and approved by the state. Once the permit was approved, the WDNR closed the NON without assessing a monetary penalty.

#### Fleetguard, Inc. – Black River Falls, Wisconsin

The Black River Falls facility was issued a NON by the WDNR on July 31, 2003, based on the results of a site inspection by a waste management specialist from the WDNR. During the inspection, several RCRA generator standards were cited by the authorities as non-compliant. The situation was corrected immediately and no fines were levied. As a result of the incident, facility personnel were re-trained on the appropriate waste management procedures and the refresher training schedule was made more aggressive.

#### **Jamestown Engine Plant - Lakewood, New York**

On July 1, 2003 the U.S. EPA cited Cummins for the late reporting of the 2001 Toxic Release Inventory and requested information on JEP activities. Cummins signed an Administrative Agreement and paid a civil penalty of \$8,892.

#### **Cummins ReCon facility - Memphis, Tennessee**

Representatives of the Tennessee Department of Environment and Conservation conducted an inspection of the Memphis ReCon plant in June 2003 to determine compliance with State

hazardous waste regulations. The Department noted non-compliance associated with waste and waste container management regulations resulting in a \$1,750 penalty. All issues were corrected within 90 days.

#### **Energy Conservation at Cummins Facilities**

Cummins spends more than 90 percent of its utility (electricity, natural gas, heating oil, water and sewage) dollar on electricity and natural gas. For 2003, Cummins spent approximately \$41 million on these utility costs, on par with 2002 – despite increased production volumes and higher commodity resource prices. The Company used Six Sigma projects to help control utility consumption and costs.

Cummins has implemented a number of projects at its facilities in the past three years to reduce energy use. Among them:

- Cummins Jamestown Engine Plant at Lakewood, N.Y., in 2003 and 2004 replaced 400- and 250-watt metal halide lights with new electronic ballast T8 fluorescent lights. The T8 fluorescent system produced greater energy savings as well as higher lighting levels. In addition to saving energy, the enhanced lighting resulted in a safer work environment. The project cost of almost \$600,000 was 50 percent funded by the New York State Energy Development Agency through an energy reduction rebate program. The new system has 2,600 plus new fixtures replacing more than 2,800 existing metal halide lamps. The new fluorescent lights will result in prolonged higher lighting levels, as well as energy reduction of more than 3.6 million khw/yr and cost savings of \$220,000 per year.
- The Power Generation America (PGA) facility at Fridley, Minn., replaced an aging compressed air system with a new energy efficient system. This included replacing two air compressors, adding 3,000 gallons of additional compressed air storage, installing an electronic control valve to stabilize the plant air pressure and re-piping parts of the plant. PGA also worked with the local electric utility and a motor manufacturer to complete a plant-wide motor survey and replaced motors with a two-year or less payback, including a utility rebate and installation costs.
- Automation on the block line was improved to allow the power to be shut down between shifts at the Jamestown Engine Plant. Similarly, a computer-based lighting control system was used to shut off lights in the Columbus, Ind.-based Fuel Systems Plant in certain areas during non-production periods. A manual program to conserve electricity in office areas during unoccupied times also was instituted.
- ➤ The Daventry Engine Plant at Daventry, England, installed new accumulators on the block line to store hydraulic energy. At the same time, it lowered air pressure set points to reduce compressed air energy consumption.
- Cummins India Ltd. at Pune, India, instituted an aggressive energy efficiency program that included replacing older compressed air systems with a high efficiency system, including controls, compressor, piping, dryers and receivers.
- Cummins India Ltd. also had an aggressive energy efficiency program in 2004 that resulted in the following energy-saving steps being taken:

- Installation of Polycarbonate Sheets on roofs for natural light that allowed artificial lighting to be switched off during the day
- Modifications in the cleaning booth
- o Replacement of aluminum fan blades with FRP blades
- Installation of energy saving equipment on cooling towers
- Optimization of auxiliary power house frequency
- o Improvements in induction hardening machine water cooling system
- Reduction in transformer losses
- At the Cummins Technical Center in Columbus, Ind., computer-monitored sensors and controls and an auto-paging system for key test cell equipment were installed to alert technicians prior to equipment failure system shutdowns. That effort improved test cell uptime and eliminated test repetition.
- Cummins Industrial Center at Seymour, Ind., reduced the amount of natural gas required in the plant by lowering the engine wash temperature prior to engine painting. Paint adhesion was not affected.
- Consolidated Diesel Co. at Rocky Mount, N.C., installed new Pulse Start Ballasts and high efficiency HID lamps in 850 light fixtures on the machining side of the facility. Lamp fixture glass reflectors were cleaned to improve light levels and light disbursement. All compressors were linked using trunk cabling and a software package was installed to manage the overall plant compressed air function (load sharing).

Other energy projects completed in 2003 involving Cummins Power Generation and engine assembly plants saved in aggregate more than \$1 million and reduced energy consumption by 7.88 gigawatt hours (GWH) on an annual basis. These energy reductions equate to an estimated emissions reduction of 15.96 million pounds (7,253 metric tons) of CO<sub>2</sub>.

## **Maximizing Energy Efficiency**

Cummins Power Generation in Fridley, Minn., installed two of its own power generation units to demonstrate how its micro-turbine gensets could harness waste manufacturing energy and reduce energy costs, while also meeting ISO 14001 and Climate RESOLVE greenhouse gas reduction objectives.

Previously, the Fridley facility burned natural gas to heat an oven as part of the generator set manufacturing process. With the installation of the micro-turbine genset system, natural gas now powers the gensets. Hot exhaust from the clean-burning system heats the oven while the microturbines generate electricity. This electricity is put back into the plant's power grid and is used to help operate parts of the facility's manufacturing processes.

This combined heat and power project has resulted in maximizing energy efficiency, minimizing environmental impact and reducing manufacturing costs. This power generation system:

- Provides 1,000,000 kW/yr of formerly purchased electricity
- Prevents 1000 tons CO<sub>2</sub>/yr from being emitted into the atmosphere
- Reduces facility greenhouse gases by 3 percent (equivalent to 80,000 gal diesel fuel reduction)
- Saves \$20,000/yr savings in gas and electric costs

# **Energy and Waste Reductions at Cummins Industrial Center**

Cummins recognizes that environmental improvements make sound business sense.

At Cummins Industrial Center, a manufacturing facility located in Seymour, Ind., multiple ISO 14001 improvement initiatives were implemented in 2003. These programs had a substantial positive impact on the environment and resulted in significant cost savings to the Company.

In the past, CIC ran boilers all year to heat air for engine test operations. By adding a thermostat controlled air heater to the air line, and installing high turn-down controls, Cummins was able to shut off the boilers during the summer months and reduce the temperature range in which they fire. This reduced natural gas consumption by 40 percent at an annual savings of \$240,000.

In addition, CIC initiated multiple programs driven by ISO 14001 improvement initiatives to minimize water use and waste production. Facility improvements allowed for the effective removal of solids at the site, allowing it to become self-sufficient in wastewater treatment. In addition, system improvements have allowed the re-routing of wastewater back into the process – saving 4.6 million gallons of water a year - instead of sending wastewater to the city treatment facility.

The facility also improved its oil separation capabilities. The company will save \$45,000 annually from these new processes. Finally, onsite management of cooling tower process water resulted in an additional cost savings of \$96,000.

#### **Going Beyond Waste Disposal Regulations**

In 2003, the Cummins MidRange Engine Plant (CMEP) in Columbus, Ind., changed from disposable to reusable aerosol cans on the machining line. These reusable cans use compressed plant air as the propellant. In addition to saving landfill space, this new process removes the chemical propellants that are commonly found in commercial spray cleaners.

# **Cummins Mexico Focuses on Environment**

A Six Sigma project led to the elimination of boilers powered by diesel fuel to heat water and produce steam for the component washing machines. Natural gas is now piped directly to the cleaning operations to heat the water and solvents. This has greatly reduced the NOx and particulates emitted into the atmosphere.

A second project reduced the consumption of industrial rags, introduced the use of lighter and more absorbent cloths and assured that the dirty rags were recycled as fuel in government-certified thermal plants, rather than being sent to a landfill.

Cummins Mexico also has played an active role in the Mexican Fund for the Conservation of Nature and EARTH University in Costa Rica. EARTH is the acronym in Spanish for "Agricultural College for the Humid Tropics" and has 400 students from 19 Latin American countries. The university promotes ethical values, sustainable development, entrepreneurship and social responsibility.

## **Hazardous Waste Reductions in Cummins U.S. Operations**

Through implementation of ISO 14001 and consistent with the Company's commitment to the continual improvement of environmental performance, over the last two years five of Cummins manufacturing facilities have substantially reduced the volume of wastes regulated as hazardous as defined by the EPA.

In each case, these reductions in waste have allowed these facilities to downgrade their hazardous waste generator status. These noteworthy improvements in environmental performance were the direct result of the Company's innovative approach to product design and product substitution, as well as increased operational efficiencies and the establishment of comprehensive waste management programs.

In 2003, Cummins formed a Safety and Environmental Council, comprising functional excellence, safety and environmental leaders from across the Company's four business units, in addition to Cummins corporate safety and environmental affairs managers and the Company's Vice President – General Counsel.

The council, which meets quarterly, recommends and implements safety and environmental policies and strategic initiatives by reviewing best practices and Six Sigma projects in these areas.

The Company's safety measures include both goals and targets. For all Cummins facilities worldwide, the Company measures itself against the U.S. OSHA standard. In addition, it measures and scores manufacturing facilities against a set of criteria established under the Cummins Operating System (called the CPE score).

These criteria look at how well an organization is implementing the Cummins safety system, which is based on 82 statements, 14 programs and the Company's 10 Cummins Operating System practices. Each statement is evaluated on a 1 to 10 scale and the scores are totaled and placed into the following categories:

- 50 points Level 1
- 50-69 points Level 2
- 70-84 points Level 3
- 85-95 points Excellence level

The corporate goal is zero safety incidents and a CPE score of 95. Targets for 2004 include:

**Incidence Rate** -- 2.0 or a 50 percent improvement over 2003 performance. **Severity Rate** -- 8.0 or a 50 percent improvement over 2003 performance. **CPE/COS Score** -- Level 3 with a minimum score of 70 points.

The Incidence Rate is calculated by the number of OSHA recordable injuries times 200,000 divided by the number of exposure hours. The Severity Rate is calculated by the number of lost work days times 200,000 divided by the number of exposure hours.

The following table shows how Cummins safety performance compares to others in the Company's sector.

# Safety Performance/Industry Comparison Cummins Inc.

Incidence Rates								
Industry	Private Industry	Manufacturing	Industrial machinery & Equipment	Miscellaneous manufacturing Industries	CECO	CECO	CECO	Best Rate
Year	2002	2002	2002	2002	2002	2003	Q1,2004	2002
Incidence Rate	5.3	7.2	6.7	6.2	2.1	1.9	1.7	0.5
Severity Rate	8.0	7.0	7.0	7.0	9.9	11.1	8.4	0.5
Cases with days away from work	1.6	1.7	1.6	1.7	0.6	0.6	0.6	0.2
Cases with job transfer or restriction	1.2	2.3	1.7	1.7	0.5	0.3	0.3	0.05
Total	2.8	4.1	3.3	3.4	1.1	0.9	0.9	0.1
Other Recordable cases	2.5	3.1	3.4	2.8	0.9	1.0	0.9	0.3

As part of a control plan to evaluate the system, in 2004 the Company implemented an aggressive audit schedule and will use these results to more formally recognize facilities for safety excellence. This process includes the following three steps:

- Pre- Audit -- Performed to identify the gap between current practices and the system required based on the CPE/COS criteria
- Closing the Gap -- A period of time given to the facility/organization to make improvements.
- Formal Audit -- A formal audit is conducted with the participation of external auditors, trained in Cummins safety reporting processes, to verify conformance to safety criteria.

To date, 19 audits have been conducted, four lead auditors have been trained and 12 coauditors have been developed.

# **External Safety Recognition**

## Fleetguard - Cookeville, Tennessee

The Fleetguard facility in Cookeville received the Commissioner's Award of Excellence from the Tennessee Department of Labor and Workforce Development during an on-site ceremony in October 2004. The award goes to employers and their employees who together have achieved the required hours worked without experiencing a lost workday due to a safety issue and companies that have maintained total injury and illness incident rates at least 10 percent below the national average for three consecutive years. Each year, only a handful of facilities in Tennessee meet the criteria for this award.

#### **Cummins 2004 Safety and Environmental Conference**

Company representatives with Health, Safety and Environmental management responsibilities gathered in Columbus, Ind., in September 2004 for a three-day conference to share best practices and network.

Sessions focused on HSE best practices, strategies and technical and regulatory information. The event was attended by about 100 people, representing every division of the Company and facilities in10 different countries.

During its 85-year history, Cummins has grown into a Fortune 500 Company with operations located around the world.

Yet, corporate social responsibility remains a fundamental part of the way the Company operates in every community. A Corporate Social Responsibility Department sets strategic direction and promotes programs, but the real corporate social responsibility results from the daily actions of Cummins employees.

Examples of the Company's philosophy of making people's lives better by unleashing the power of Cummins include the following:

- In Brazil, elementary school-age children who once had few educational opportunities now have a school to call home thanks to a partnership between Cummins and the Sao Paulo state government.
- ➤ Also in Brazil, the Clessie Cummins clinic named for the Company's founder has provided needed medical care for residents for more than a decade. Cummins was the primary driver in getting the projects off the ground and continues to support staff, maintain the facilities and fund other activities.
- ➤ Eight years ago, Cummins wholly-owned subsidiary in San Luis Potosi, Mexico, established its own charitable foundation with seed money from the Cummins Foundation. Today, more than 70 volunteers help manage a half-dozen community projects, including a carpentry shop where most of the work is performed by people who are blind or otherwise physically challenged.
- ➤ In 2000, when the Bartholomew County School Corp. in Cummins hometown of Columbus, Ind., was looking for ways to fund construction of a new middle school, the Company contributed nearly \$1.3 million to the effort.
- ➤ In April 2004, Cummins helped fund a celebration of the 50<sup>th</sup> anniversary of the landmark Supreme Court decision *Brown v. Board of Education* that paved the way for desegregation of the U.S. public school system. The Company was a major sponsor of events that included visits and speaking appearances by Linda Brown Thompson and Cheryl Brown Henderson, daughters of the lead plaintiff in the case.

Such efforts are one of the reasons why Cummins earned the No. 2 position in 2003 on *Business Ethics* magazine's list of "Best Corporate Citizens" and is one of a handful of companies to be named to the list each of the last five years.

Corporate social responsibility at Cummins has three primary areas of focus: community involvement, corporate donations and the Cummins Foundation, which celebrated its 50<sup>th</sup> anniversary in 2004, making it one of the oldest charitable foundations of its kind.

# **Community Involvement Teams**

These teams are employee-driven committees that represent the diversity of the workforce and all levels of management.

Each team establishes a work plan, a budget and a focus area for community service. Every two years, these teams are audited against a set of Functional Excellence criteria. The audit process ensures that corporate responsibility remains an important business objective across all business units, provides a measurement and recognition process and identifies areas for development over the next two-year cycle.

The CITs are charged with:

- Developing an annual community involvement plan
- Developing a budget to support activities
- Conducting employee giving campaigns
- Organizing volunteer activities
- Responding to community requests for donations
- Developing proposals for the Cummins Foundation
- Completing bi-annual Functional Excellence Audits

## **Corporate Donations**

Donations provide a means for Cummins to participate in community events that are more appropriately funded by the Company than the Foundation. These activities include memberships, sponsorships, dinners or other events where the Company receives a benefit in advertising or other forms of recognition. Cummins donated nearly \$700,000 directly to charitable causes around the world in 2003 – in addition to \$2 million in funding the Company provided to the Cummins Foundation.

## The Cummins Foundation

The Cummins Foundation is one of the oldest charitable foundations of its kind in the United States.

The Foundation, which is supported solely by investment from Cummins Inc., has grown from its roots as a vehicle to help improve Cummins "hometown" of Columbus to become a central part of Cummins efforts to be a socially responsible corporation worldwide. The Foundation's President also serves as Cummins Executive Director of Corporate Social Responsibility (CSR), providing leadership and coordination to all the Company's CSR work.

In addition to the Cummins Foundation, which primarily funds projects in the United States, Company-funded foundations have been formed in Mexico and India over the last decade.

The mission of the Cummins Foundation is to make people's lives better by:

- Serving and improving the communities in which Cummins does business
- Providing the tools and means for people living on the edge of society to overcome the barriers they face.

To accomplish that mission, Cummins has chosen to focus its resources on projects that allow it to make a measurable difference in the community, with an emphasis on education, health, economic opportunity and the environment.

In 2003, the Cummins Foundation provided 100 grants worth more than \$1.1 million to charitable organizations in the United States. That money is in addition to direct corporate grants and considerable employee and Company donations to the United Way.

For all its success, the Foundation's role is expected to strengthen in the years to come – driven by the strong support of the Cummins executive team.

In kicking off the Company's first Corporate Social Responsibility Conference in 2004, Cummins CEO Tim Solso challenged those in attendance to help the Company match "what we have done in the past 50 years over the next five years."

To help accomplish that, the Company has committed to increase its investment in the Foundation going forward, with an increased emphasis being placed on distributing funds as widely as possible among Cummins communities.

A sampling of recent projects supported by the Cummins Foundation:

- A family resource center in Rocky Mount, N.C.
- A program to encourage men to play a greater role in their children's lives in Jamestown.
- Materials and support for multi-lingual classes in Lake Mills, Iowa.
- A childcare program for homeless children, ages five and younger, in Memphis.
- An immunization and health fair in Juarez, Mexico.
- A crisis nursery for abused children in Fridley, Minn.
- Support for the American Cancer Society in Columbus.
- Support to New York Firefighters 9/11 Disaster Relief Fund.
- Scholarship support for ABC-Stewart Montessori School in Columbus.
- Annual support to United Negro College Fund in Fairfax, Va.

Donating much-needed funds to important projects is just part of the work done by the Foundation. Cummins recognizes that "people power" can be as effective as providing grants, and the Foundation plays a leading role in encouraging Cummins employees and citizens worldwide to get involved with their communities.

# For example:

- Many Cummins plants set up school supply drives where employees in areas such as Columbus, Ind.; Jamestown, N.Y.; Charleston, S.C. and Memphis, Tenn., donate essential supplies to children in surrounding schools.
- In North America, the Plant Innovation Fund challenges plants to compete for a restricted number of grants through a "request for proposal" process. This program encourages local leadership to take the initiative to survey their community and develops awareness in the employees of the problems within their society.
- The 'Hispanic Achievers Program' was set up in April 2004 in Nashville, Tenn. The program entails employees of Hispanic descent mentoring and tutoring the at-risk Hispanic youths.

# School on Wheels - Pune, India

In Pune, India, economically disadvantaged children often grow up with little access to formal education. In many cases, logistics are the biggest hurdle: Children can't get to the same school at the same time every day because they are living on the streets or their parents have jobs that force them to frequently move around the area.

The Cummins India Foundation helped bring the school to the children. Pune's first "school-on-wheels," a custom-designed bus/classroom, was launched in 2001 to bring education to the most at-risk children in the area. The Cummins India Foundation donated the bus and made a multi-year commitment to support the program.

The Cummins India Foundation was founded in 1991 and provides support to community development efforts that primarily deal with education, environmental and energy-related issues.

# The Ashleigh Erin Foundation – South Africa

Cummins has taken an active role in providing technical and engineering education to South African high school-age students and young adults through the Ashleigh Erin Foundation, which was formed in 2001. While many South African children receive a solid academic education, a lack of technical skills training has contributed to a high unemployment rate in the country.

The Foundation is establishing a multi-purpose technical skills training institute that will provide students with the opportunity to gain skills employers in the country are seeking. The institute is located in Soweto, where no other such school exists and where it is expected to draw a diverse student population, including many of the country's most disadvantaged residents.

## Watoto de Afrika – Memphis, Tennesee

Memphis-based Watoto de Afrika is a program run by Donald O'Conner, who is a community leader in helping African-American children help themselves.

O'Conner, with the support of the Cummins Foundation, has created an African culture, education and dance program for more than 100 children ages 5-17. In order to remain in the program, the children must maintain a 2.5 grade point average and participants give back to the community by presenting a number of dance performances throughout the year. One sign of success: Every Watoto de Afrika "graduate" has gone on to attend college – compared to a college matriculation rate of less than 40 percent for African-American students nationwide.

"In the search for character and commitment, we must rid ourselves of our inherited, even cherished, biases and prejudices. "Character, ability and intelligence are not concentrated in one sex over the other, nor in persons with certain accents, or in certain races, or in persons holding degrees from some universities over others.

"When we indulge ourselves in such irrational prejudices, we damage ourselves most of all and ultimately assure ourselves of failure in competition with those more open and less biased."

- J. Irwin Miller, former Cummins Chairman and CEO.

Mr. Miller's words, spoken more than 20 years ago when he was Chairman of the Cummins Executive Committee, ring as true today as ever. At Cummins – which does business in more than 130 countries - the message is powerful: Not only is valuing diversity good business, it's also the right thing to do.

From a business perspective, the Company believes that successfully managing diversity strengthens relationships with an increasingly diverse customer base. Beyond that, a diverse work force – in terms of race, gender, lifestyle and educational background – ensures a variety of perspectives to best address the Company's business needs. Cummins diversity initiatives include the following:

- All employees complete a comprehensive diversity training program designed exclusively for Cummins. Second generation diversity training is a mandatory part of career development for leaders.
- The Chairman's Diversity Council, made up of senior leaders from across the Company, sets the course for diversity issues including hiring practices, supplier relations, benefits matters and training.
- In all, 48 Local Diversity Councils (LDCs) have been created to address diversity issues in the communities in which Cummins does business. In addition, the LDCs focus on recruiting, retention and cultural differences in the workplace.
- Cummins long-standing commitment to use qualified minority-owned suppliers has yielded good results in recent years. In 2003, Cummins spent more than \$100 million with small business and minority-owned suppliers.

More than 50 businesses attended Cummins Diversity Procurement Conference in 2003, where they were given access to purchasing representatives from across the Company. And in 2004, Cummins was the title sponsor of a statewide conference in Indiana that brought minority-owned businesses together with potential corporate customers.

• Cummins offers health care and other benefits to non-spousal domestic partners. In making these benefits available to employee life partners (both same-sex and opposite-sex

partners), Cummins recognizes that it must provide attractive and flexible programs to all employees.

Cummins has received local, state and national recognition for its work in diversity. In 2003, for the second time in three years, Cummins was named by Fortune magazine as one of the 50 best places to work for minorities.

The Company's business practices also have been recognized by Business Ethics magazine, which has placed Cummins on its list of "best corporate citizens" from among the 1,000 largest companies in the United States, each of the five years it has compiled the list. Cummins was ranked as high as No. 2 in 2003.

Cummins concept of diversity in the workplace has two parts. The first is creating a diverse workplace in terms of the representation of people from many different backgrounds. The second is creating an environment that promotes people's differences and, in doing so, inspires innovative ideas and solutions. Making sure that everyone has a voice can lead to solutions that address real-time problems.

The Company relies on the insight that comes from a diverse workforce to enter new markets and geographies. The Company depends on the varied talents of its people, systems and organizational knowledge to solve complex problems, reduce costs and create differentiated products and services that delight customers.

Diversity provides Cummins with a competitive advantage in the following areas:

- New markets and new businesses Sales in markets outside of the United States currently are growing faster than in the U.S., the largest current market. Nearly all world growth to 2050 is projected to occur in Africa, Asia and Latin America. The best way to grow into new businesses and more geographic regions is to have employees who understand the culture or are part of it.
- Customer requirements Purchasing materials and services from a diverse supply base helps the Company take advantage of all opportunities to be the low-cost producer. Cummins customers are demanding the creation of economic opportunity for all parts of society, especially those under-represented in today's economy. This includes DaimlerChrysler, the Company's largest customer. This effort will have a longer term impact of creating new markets for Cummins products.
- Changing demographics Immigration, changing global norms and birthrates have increased the population and influence of Latinos, people of African descent, Asians and women in many countries. These changes are driving greater complexity into all regions. Successful companies understand how demographics can impact their markets, and how dealing effectively with diverse populations creates value.
- Competitive performance Having a diverse workforce enables a company to solve complex problems, innovate and otherwise adapt more quickly in a competitive environment.

- Attracting and retaining the best people Employees who feel welcome and valued in the workplace will be more innovative, act as owners and engage customers to provide superior products and service. A company that promotes diversity in hiring and increases an understanding and appreciation of differences will reap the following benefits:
  - A positive work environment where all people can perform at the highest levels
  - Increased employee engagement and creativity
  - Attraction and retention of the best talent
  - A positive reputation in the community
  - Improved decision-making capabilities provided by more viewpoints and choices
  - Improved problem resolution
- Doing the right thing -- A company is only as healthy as the environment and communities in which its employees work and live. It is in Cummins self-interest, not selfish interest, to create an environment in which people treat others as they want to be treated. This is consistent with the Company's core values.

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