

Sustainability Report November, 2003







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# INTEGRITY



**Cummins Inc.** has a strong commitment to developing business solutions and products that meet the needs of our 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 first, Sustainability Report. The goal of this report is to engage stakeholders in examining Cummins culture, practices and performance across a number of measures and to serve as a foundation on which to build future, more detailed reports.

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. We have not attempted to include every measure suggested by the GRI, but rather those measures that we believe are most important to our business. Our goal is to continuously improve our reporting mechanisms to ensure even greater transparency.

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.

Im Soles

Tim Solso Chairman and Chief Executive Officer Cummins Inc.



#### VISION AND STRATEGY

#### 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 our nearly 24,000 employees.

We take pride in manufacturing engines, generators, filters, turbochargers and related products that serve the varied needs of our customers worldwide. To do that, we unleash the power of our employees: Their energy and commitment make it possible for us to maintain a leadership position in the markets we serve.

We also recognize that with our role as a corporate leader comes a responsibility to help improve the communities in which we work and live. It is a responsibility we bring to life through our actions and the activities of our employees.

Accordingly, our corporate mission and values reflect our desire to return value to our customers, employees, shareholders and communities:

#### OUR 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.

#### OUR VALUES

- Integrity: We strive to do what is right and do 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.

#### OUR STRATEGY

Central to our business is a four-pronged strategic approach that we began to emphasize in 2000. The approach focuses on the following:

#### • Being a low-cost producer in as many of our markets as possible

Nearly all of our markets compete on price. To be successful we must offer the best products at the best prices. To do that, we continually scrutinize our business looking for cost savings.

Our Six Sigma quality program, launched in January 2000, does that for us. Since its inception, more than 1,600 completed Six Sigma projects have resulted in more than \$400 million in savings to the Company, while infusing quality as a critical measure into every process. More than 1,400 "belts" have been trained in Six Sigma tools.

#### • Expanding into related markets

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

#### • Maximizing return on investment

We have shifted our emphasis from revenue growth toward earnings and return on investment (ROI) in the past few years. Our principle measurements for (ROI) are return on equity and return on net assets, and we set aggressive targets for each measurement.

#### • Leveraging complementary capabilities

Increasingly, we look for ways to standardize our procedures, technologies and services to reduce operating costs and increase our operating efficiency.

#### PROFILE

Cummins roots are planted in soil nourished by innovation, persistence and a commitment to community. Founded in Columbus, Ind., in 1919 as 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, Cummins is no longer just an engine business, but a global leader with nearly \$6 billion in annual sales. We are 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 Other and our International Distributor Business. They all share common distribution systems, as well as technology. For example, aftertreatment technology in our Filtration division supports both Power Generation and the Engine Business. We do cross-selling to common customers, we partner through our joint venture relationships and we have shared services that provide scale, allowing us to lower costs.

Our 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 sail our waterways. Cummins-built generators supply both prime and auxiliary power around the globe. A network of distributors provide repair and maintenance service for our customers worldwide.



## INNOVATION



#### **ENGINE BUSINESS**

The Engine Business, which accounted for 56 percent of the Company's sales in 2002, manufactures and markets an array of diesel and natural gas-powered engines under the Cummins brand for the heavy-, medium- and light-duty truck, bus, recreational vehicle, agricultural, construction, mining, marine and other markets. We also provide a full range of new parts and services and remanufactured parts and engines through our extensive distribution network.

Our engines range in size from 31 to 3,500 horsepower. Our primary customers include large truck and off-road equipment manufacturers, and we also are the exclusive supplier of diesel engines to DaimlerChrysler for the Dodge Ram pickup truck. In 2002, we 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 our second largest business unit, representing 20 percent of total sales in 2002. Through this business, we provide integrated power solutions, designing and manufacturing most of the components that make up power generation systems.

Our products are marketed under the Cummins, Onan and Newage brands and include diesel and altemative-fuel, electrical, stand-by and prime-power generator sets used in commercial and residential settings, such as hospitals, office buildings and homes. We also are the worldwide leader in auxiliary generators for recreational vehicles and diesel-powered recreational watercraft.

#### **FILTRATION AND OTHER BUSINESS**

Our Filtration and Other Business produces filters, silencers and intake and exhaust systems under the Fleetguard, Nelson, Kuss and Universal Silencer brands. We also are the largest worldwide supplier of turbochargers for commercial applications through our Holset brand.

Our products are used in on- and off-highway heavy equipment, passenger cars, industrial equipment, small engines and gas turbines. Our primary customers include truck manufacturers and other original equipment manufacturers also served by our Engine Business. Through our new Emission Solutions Business, we help customers meet increasingly stringent emissions standards worldwide.

#### **INTERNATIONAL DISTRIBUTOR BUSINESS**

The International Distributor Business, created in 2002, is Cummins newest business unit. It is a network of 17 company-owned and two joint venture retail distributors, plus 111 sales and services locations in 50 countries and territories outside the United States.

The International Distributor business was created to take advantage of Cummins longstanding presence in key international markets, such as China, where we are an equal partner in the second-largest engine maker and where we have been doing business for nearly 30 years. Other key geographical markets include India, Japan, Australia, the United Kingdom and South Africa.

In addition to selling products, our network of trained personnel provides maintenance, engineering, repair and overhaul services.

#### **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 include:

**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. Darnell** - Retired Chairman and Chief Executive Officer of Inland Steel Industries and a Cummins director since 1989. Among his other duties, Darnell currently serves as Chairman of the Federal Reserve Bank 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.

**Walter Y. Elisha** – Retired Chairman and Chief Executive Officer of Springs Industries Inc. and a director since 1991. He also serves as a director of AT&T Wireless and as a trustee of Wabash College. He is a former member of the President's Advisory Committee for Trade Policy and Negotiations.

**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.

**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., Weyerhaeuser Co., Coinstar Inc. and Solutia Inc.

**Franklin A. Thomas** – An attorney and consultant with the TEF Study Group and a director since 1973. He was President and Chief Executive Officer of the Ford Foundation from 1979-1993. In the mid-1960s, Thomas served as Assistant U.S. Attorney for the Southern District of New York and Deputy Police Commissioner for New York City and was President of the Bedford Stuyvesant Restoration Corp. from 1967-1977. He is a director for Citigroup Inc., ALCOA, Lucent Technologies Inc. and PepsiCo.

**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, divest itures, 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 Corporate 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 m e mbership 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 our commitment to act with integrity, to do what is right and what we say we will do. This driving principle is reflected in all our dealings with customers, suppliers, shareholders, employees and the countries and communities in which do 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, including import/export controls
- 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 we work and live
- Ensuring accuracy and openness in our 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 our 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)</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 our 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 our Vision by accomplishing our 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 our manufacturing processes, Cummins is also involved in the setting of public policy to help establish processes that will lead to desired goals.

In August of 2001, we 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 policy makers, develops and implements government relations strategies to achieve business objectives and advances business marketing objectives relative to government programs and objectives.

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 and government markets, workplace and human resources issues, defense and homeland security and facility and infrastructure programs.

# CORPORATE RESPONSIBILITY

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#### **COMMITMENT TO STAKEHOLDERS**

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

We actively engage all our stakeholders, seeking feedback and doing our best to keep them informed of our actions and performance. Our policies reflect our commitment to financial excellence, environmental stewardship, workplace equity, social responsibility and fair competition.

**Customers**: We are dedicated to meeting or exceeding the expectations of our customers. We work to produce products and to provide support that give our customers a competitive advantage.

We work closely with key customers during the production and development of products to ensure that they are manufactured to the customers' satisfaction.

**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 comprehensive and competitively priced health-care coverage; a pension program; generous tuition reimbursement benefits for continuing education and more. These benefits 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 our efforts to attract and retain a top-flight workforce. All new hires must attend seven mandatory training courses covering the company's code of conduct: treatment of others; diversity; information and physical security; sexual harassment issues; the Cummins Performance Management System and the Cummins Operating System.

Employees' performance and development plans are reviewed regularly through the Cummins Performance Management System, and employees receive regular formal feedback on their work.

Finally, Cummins offers its employees myriad challenges and opportunities for growth with 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.

**Business partners**: Cummins has working relationships with distributors and suppliers across the world, including 17 joint venture operations outside the United States. Likewise, 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 the recent recognition given to the Fleetguard filter division by PACCAR, a truck manufacturer, and its standing as one of DaimlerChrysler's highest SCOREing (Supplier Cost Reduction Effort) suppliers. At the same time, Cummins works to make its suppliers part of our team.

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

After a difficult 2001 in which the Company lost money, Cummins returned to profitability in 2002. Cummins dividend – 30 cents a share per quarter – is among the more generous dividends offered in corporate America and has remain unchanged for nearly four years, despite the turbulent economic climate.

Beyond returning financial value, Cummins believes strongly that it owes investors a transparent window into its financial workings.

Cummins also 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 d i scuss our financial results. Senior management also attends a number of investor conferences during the course of the year, and meets or talks directly with individual analysts and investors.

**Communities:** As is detailed in the "Social Responsibility" and "Environmental" sections of this report, Cummins and its employees are active in the communities in which we operate and live. Indeed, the Company's mission of "Making people's lives better by unleashing the power of Cummins" is the embodiment of our approach to doing business.



Cummins and DaimlerChrysler enjoy a successful partnership in which Cummins is the exclusive supplier of diesel engines for the popular Dodge Ram pickup truck.

#### **PERFORMANCE INDICATORS**

#### ECONOMIC PERFORMANCE

The economic climate over the past few years has been difficult, not just for Cummins but for much of the world. Heavy manufacturers such as Cummins have been hard hit as many of our customers have held the line on capital expenses.

During that time, we saw our sales and profits fall. Nevertheless, we worked relentlessly to cut costs, diversify our business and provide increasing value to our customers. The results of that effort began to pay off in 2002 when we reported a modest increase in revenues and reported a net profit of \$82 million.



We launched new businesses, built partnerships and expanded our global reach, while keeping investments in new capital low. We introduced quality products that have been well received by our customers. We were the first company in our industry to comply with stringent new emissions standards for diesel engines in 2002.

We continued to fund important development efforts even as we tightened spending and worked to c o ntrol costs across the Company. Our cash flow has remained strong and we continue to offer our shareholders an attractive dividend.

Detailed financial information can be found in our filings with the U.S. Securities and Exchange Commission, which are available in the Investor Information section of the Company web site, <u>www.cummins.com</u>.

## ENVIRONMENTAL MISSION

- We will develop superior products that continually meet or exceed emissions and noise regulations while improving fuel economy.
- We will exercise global citizenship.
- We will make the environment a daily part of our business everywhere we operate and distribute our products.
- We will evaluate and report our progress against stated goals.

#### CUMMINS PRODUCTS AND THE ENVIRONMENT

#### We will develop superior products that continually meet or exceed emissions and noise regulations while improving fuel economy.

Our ability to comply with the spirit and letter of environmental rules and regulations is an essential component of maintaining a leadership position in our industry.

At Cummins, our commitment begins with a research and engineering program designed to achieve product improvements, innovations and cost reductions for our customers, as well as to satisfy legislated emissions requirements. In 2002, our research and development expenditures were \$201 million or 3.4 percent of sales.

This effort translates into products like the family of heavy-duty diesel engines designed to meet the Environmental Protection Agency's (EPA) strict new standards for on-highway trucks. We were the first company to have three engines certified to the new standard, which took effect October 1, 2002.

It also encompasses areas such as the fuel cell research in our Cummins Power Generation Business (CPG). The Department of Energy (DOE) has awarded CPG a cost-sharing contract to develop and commercialize a 10-kilowatt KW Solid Oxide Fuel Cell system for a wide range of commercial applications.

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 carbon dioxide.

We leverage our research and product development with Cummins technology expertise to create businesses like Emission Solutions.

This new Filtration Business subsidiary, which specializes in filtration and exhaust products and systems for diesel engines (9-7000 horsepower), was created in 2002. It is a leader in providing integrated aftertreatment technologies for retrofitting engines in service. Our environmental focus extends to our reconditioning business, Cummins ReCon, which renovates and recycles engine blocks, crankshafts, cylinder heads,

#### CENTINEL.

#### 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. The Centinel 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 betterprotected engine that runs more smoothly with less time and money spent on oil system maintenance. This system reduces the volume of oil waste.

Compare the example of the amount of oil that would be discarded from a normal vehicle over the course of its lifetime to the amount of Centinel used by a normal vehicle.

An ISX Engine driven 1,050,000 miles without Centinel would drain 360 to 840 gallons of oil, while the engine with Centinel would drain only 12 gallons at 525,000 miles in its life.

In regard to the number of oil filters that are discarded, data shows that for every 75,000 miles driven with Centinel only one oil filter is used. Without Centinel, a new oil filter is required every 15,000 miles. 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.

As a company whose primary product for the past 84 years has been diesel engines, Cummins provides technology essential to transporting people and goods thus helping to build this nation's economy. These benefits, however, come at a cost and we recognize that diesels, like all combustion engines, have environmental impacts and public health risks.

At Cummins, our corporate mission dictates that everything we do leads to a cleaner, healthier and safer environment. That is why we have dedicated significant resources to support the investigation of the potential health effects of diesel exhaust and reducing human exposures.

Although we do not have all the answers to the scientific questions, the continued reduction of potentially harmful emissions is at the forefront of Cummins technical work. In fact, as the chart below indicates, when compared to emissions from unregulated engines, today's diesel engines emit 90 percent less particulate matter and 75 percent less oxides of nitrogen. On average, the emissions from Cummins product line are consistently certified to be below the Environmental Protection Agency's stand ards.

We continue to be an industry leader in understanding and addressing health and environmental issues. More than half of the \$2.1 billion spent by Cummins on research and deve l o pment in the last 10 years has been invested in emissions reduction technologies. Nothing we do is more important.



#### HOW ARE THE LEVELS OF DIESEL EMISSIONS IN AMBIENT AIR ESTIMATED?

Regulators need accurate estimates of human exposures to air pollutants to evaluate the risks they pose to human health and to develop the most appropriate strategies for limiting those risks. However, we know very little about what combustion products people are exposed to or the actual levels of exposure. Measuring exposure to diesel emissions is particularly challenging because of the complexity and variability of the exhaust constituents and the changes that have occurred in emission profiles over the last decade.

Most techniques that scientists use to measure diesel emissions in ambient air focus on diesel particles. However, these measurements are really estimates because, at the present time, it is impossible to determine which particles in ambient air come from diesel engines and which come from other sources. Although diesel particles can be measured in tailpipe emissions, in ambient air they mix with particles from natural and man-made sources. There is no unique tracer to identify diesel particulate matter or any other constituent of diesel exhaust.

The studies that have been conducted indicate that diesel particulate matter represents only a small fraction of the particulate matter in ambient air. According to the EPA, the major sources of small particle emissions (in descending order) are: fugitive dust (44 percent), biomass burning (17 percent), agriculture (12 percent), wind erosion (9.5 percent), fossil fuel combustion (5 percent), industry (5 percent), non-road vehicles (4.9 percent), on-road vehicles (2.4 percent), and incineration (o.6 percent).

#### NELSON CATALYZED EXHAUST MUFFLER

## NELSON

Korean residents and travelers are enjoying the benefits of cleaner air, thanks to the Nelson Catalyzed Exhaust Muffler

(CEM) installed under the transit buses on the streets of many mid to smallsize cities. Fleetguard's new Emission Solutions business began supplying this exhaust emission solution system to Daewoo Motors Bus Division for its n ew low-emission diesel-powe red transit buses in the fall of 2002.

The CEM has enabled Daewoo Bus to reduce particulate matter from their engine exhaust by 50 percent, helping the bus company meet the 2002 emission regulations enforced by the Korean Government.

## Cummins India Limited Among First to Meet New Regulations

Cummins India Limited (CIL) recently became one of the first companies to receive the Certification for Compliance with the stringent Central Pollution Control Board (CPCB) norms. With the completion of tests, the C Series engines have successfully completed emission certification tests for CPCB norms at Automotive Research Association of India (ARAI).

As a result of the certification, Cummins Product Division has become an "ECO-Engine Manufacturing Plant."

## WHAT DO WE KNOW ABOUT HUMAN EXPOSURES TO DIESEL EMISSIONS?

Exposures to diesel particulate matter have been measured in some occupational settings. Industrial hygiene studies suggest a wide range of occupational exposures to diesel particulate matter. The highest exposures (100 to 1,700  $\mu$ g/m3) occur in enclosed spaces, such as underground mines that use diesel engines. The mean concentrations of diesel particulate matter reported for other occupations range from 20 to 100  $\mu$ g/m3 (railroad workers) and 4 to 6  $\mu$ g/m3 for truck drivers.

Most of these measurements were made for older model diesel engines and before the introduction of modern industrial hygiene practices. Thus, they do not reflect the current situation.

The EPA estimates that annual average concentrations of diesel particulate matter in ambient air range from 1.2 to 4.5  $\mu$ g/m3; the concentrations in rural areas are lower (U.S. EPA 2000). It should be noted that these data are annual outdoor averages; we don't know how these annual air concentrations compare with actual day-to-day personal exposures.

#### WHAT IS THE CONTRIBUTION OF DIESEL EMISSIONS TO OUTDOOR AIR POLLUTION?

Information on outdoor exposures to diesel emissions is very limited. In the absence of actual measurements, scientists use other approaches to estimate population exposures. The source-oriented approach involves using emission characterization data, information on vehicle sales and mathematical models to estimate the amount of diesel particulate matter in outdoor environments. The receptor-oriented method collects data on the chemical composition of ambient air samples and emissions from different sources. This information is used in computer models that estimate the contribution of these sources to ambient particulate matter.

These techniques provide reasonable approximations for the contribution of diesel and other types of emissions; however, they have pitfalls, even for

#### Low-Emission QSK19M Powers Fishing Boat in Taiwan

The fully electronic, low-emission Cummins QSK19M engine was the power of choice for the fishing vessel "Yu Long." The 99-foot vessel, which was made in Taiwan, has a maximum displacement of 200 tons, with a cruising speed of 12.5 knots.

The customer's basis for selecting an engine was reliability and fuel economy. A low- emissions engine like the QSK19M allows the ship owner to meet the International Maritime Organization's (IMO) environmental standards.



#### **Preventing Ship Pollution**

The IMO Annex IV of Marpol 73/78 for the Prevention of Pollution from Ships regulates NOx emissions from diesel engines over 174 horsepower (130 kilowatts). To meet the needs of our customers, Cummins Marine's commercial product line is emissions compliant and certified by the U.S. Environmental Protection Agency (EPA) and Lloyd's Register of Shipping. single pollutants. They are even less reliable for complex mixtures such as diesel exhaust.

#### **ENVIRONMENTAL STANDARDS**

The EPA is authorized under the Clean Air Act to set National Ambient Air Quality Standards for particulate matter and five other air pollutants. These standards specify the maximum ambient air levels that the EPA judges necessary to protect the health of the most sensitive populations.

#### Help in Meeting Standards and Developing Products

In developing products to meet various standards, as well as the demands of our customers, Cummins relies on its participation in the following committees and partnerships:

#### THE TECHNOLOGY AND ENVIRONMENT COMMITTEE

The Technology and Environment Committee of the Cummins Board of Directors provides oversight and guidance to 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 the internal action plan

Its membership includes the following Directors: John M. Deutch, Chair, Walter Y. Elisha, Alexis M. Herman, William I. Miller and William D. Ruckelshaus.

The committee encourages relationships between Cummins and the external technical and environmental community and helps make the Company aware of persons and institutions with whom stronger relationships should be built. It participates in development and succession planning discussions for the position of Chief Technical Officer (CTO), the Vice President of Government Relations and Vice President of Environmental Policy.

#### CUMMINS MEETS OR EXCEEDS THE FOLLOWING STANDARDS

Ambient Air Quality Standards and Guidelines

Carbon Monoxide (CO)		
8-hour Average	9 ppm	
1-hour Average	35 ppm	
Lead (Pb)		
Quarterly Average	1.5 µg/m³	
30-day Average		
1-year Average		
Nitrogen Dioxide (NO2)		
Annual Arithmetic Mean	0.053 ppm	
1-hour Average		
Ozone (O3)		
1-hour Average	0.12 ppm	
8-hour Average	o.o8 ppm	
Particulate Matter (PM10)1		
Annual Arithmetic Mean	50 µg/m3	
Annual Geometric Mean		
24-hour Average	150 µg/m3	
Particulate Matter (PM2.5)1		
Annual Arithmetic Mean	15 µg/m3	
24-hour Average	65 µg/m3	
Sulfur Dioxide (SO2)		
Annual Average	o.o3 ppm	
24-hour Average	o.14 ppm	
3-hour Average		
1-hour Average		

#### THE SCIENCE AND TECHNOLOGY COUNCIL

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

This independent group is chaired by John Deutch, an outside member of the Cummins Board of Directors. The Council's role is to help the Company evaluate and improve its scientific and technological processes and tools. The Council hears from a wide range of guest speakers.

Science and Technology Council 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 Board of 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 HEALTH EFFECTS INSTITUTE: A PARTNERSHIP OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY AND INDUSTRY

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, we were instrumental in founding the Health Effects Institute <u>www.healtheffects.org.</u> The purpose of this institution - funded 50 percent by the EPA and 50 percent by the motor vehicle industry - is to provide independent and unbiased information on the health effects of motor vehicle emissions. Because neither the EPA nor industry has any role in setting HEI's research agenda or in the selection or management of its studies, the results of the Institute's work are widely perceived as being credible and sound.

#### NATIONAL ENVIRONMENTAL RESPIRATORY CENTER

Cummins also supports the National Environmental Respiratory Center (NERC). NERC is an integrated p rogram of laboratory research and information services that deals with the contribution of individual air contaminants, their combinations and their sources to the health hazards of breathing complex mixtures of air pollutants. The Center is operated by the independent, non-profit Lovelace Respiratory Research Institute and receives funding from a range of federal (EPA, Department of Energy and Department of Transportation) and nonfederal sponsors (including trade associations, petroleum companies and engine manufacturers).

#### **CLIMATE CHANGE – EXTERNAL REPORTING INITIATIVES**

Cummins is a new member of the Business Round Table Climate RESOLVE (Responsible Environmental Steps, Opportunities to Lead by Voluntary Efforts), whose members have committed to reduce or offset greenhouse gas emissions.

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



#### **CUMMINS FACILITIES AND THE ENVIRONMENT**

Cummins is committed to fostering a cleaner, healthier and safer environment in every community in which our people live and work.

Our facilities employ the Cummins Health, Safety and Environmental Management Systems (HSEMS), which are designed to protect our personnel and the environment, to preserve natural resources and to prevent harm to local communities.

Members of the Cummins HSEMS team consist of personnel from manufacturing, safety, environment and other disciplines and functions, including the Corporate Environmental Organization.

Our approach to performance reporting is multi-faceted. We assess operations that have the potential to harm individuals or impact the environment. We also set substantial and measurable objectives in managing safety and the environment. Finally, we periodically review our progress against objectives.

Our actions are guided by corporate policies that range from dealing with emergencies to management of industrial wastewater.

The second mechanism for performance reporting involves the global Cummins ISO 14001 Environmental Management System (EMS). ISO 14001 is a voluntary international standard that establishes the requirements for an EMS. Details of Cummins participation in the ISO 14001 program are discussed later in this report.

#### **Reporting Scope**

The 16 manufacturing locations from which data was accumulated for this portion of the report include more than 70 percent of our engine assembly plants worldwide, and just under 90 percent of the plants in the U.S. and Europe. In addition, facilities from each of the other manufacturing business units are represented, including the Holset organization, which manufactures turbochargers, and the Power Generation and Filtration businesses in the U.S. and Europe.

We also are working to capture similar data from several additional facilities in Asia, the South Pacific and South America to supplement future reporting initiatives. A general description of the operations, their wastes and recovery processes is provided for background.

#### **Cummins Engine Business**

Cummins EBU facility operations primarily involve product design, research and development, engine assembly and engine and component reconditioning. Engine assembly facilities perform engine block a n d 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/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, utilizing alkaline parts washing processes.

The primary waste streams generated at EBU sites include waste paint and associated materials, paint filters, sludges and filter cake, machine coolant and used oil. Metal shavings and other salvage are recovered for off-site recycling, as are used oils. At most facilities, machine coolant is recycled until ineffective and ultimately added to the wastewater stream for pre t reatment prior to discharge to public treatment works.

Wastewater pre-treatment is conducted at all North American and many other worldwide locations. Used oils, thinners and solvents are generally re-used as kiln feedstock or other fuels blending operations at off-site locations, where Btu content is sufficient. Primary airborne emissions, which are associated with painting and test cells include volatile organic compounds (VOCs), nitrogen oxide (NOx), carbon dioxide (CO2) and sulfur oxide (SOx).

#### **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.

The primary waste streams generated at FBU sites include waste paint and associated materials, paint filters, sludges and filter cake, machine coolant and used oil. Metal shavings, filter paper and other s a lvageable materials are recovered for off-site recycling, as are used oils. 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.

Treatment of used oils, thinners and solvents is consistent with that of the EBU. Along with VOCs and particulate matter, primary airborne emissions are associated with manufacturing and painting processes.

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

Cummins PGBU facility operations primarily involve product design, research and development, alternator manufacturing, assembly of generator sets, switchgear and controls and product testing. Alternator m a nufacturing 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 in measured as gensets are run at various duty cycles. Test cells are also used for certification testing to ensure products meet emissions requirements.

The primary waste streams generated at PGBU sites include waste paint and associated materials, paint filters, sludges and filter cake, machine coolant and used oil. Scrap metal, metal shavings and other salvage are recove red for off-site recycling, as are used oils. At most facilities, machine coolant is recycled until ineffective, at which point it is disposed or added to the wastewater stream for discharge to public treatment works. Wastewater pre-treatment is conducted at all North American and many other worldwide locations. Used oils, thinners and solvents are generally re-used as kiln feedstock or other fuel blending operations at off-site locations, where Btu content is sufficient. Primary airborne emissions, which are associated with painting, alternator impregnation and test cells include; VOCs, NOx, CO2 and particulate matter.

#### Materials Other than Water

Cummins uses substantial quantities of oils, paints, machine coolants, cleaning agents and related industrial products in the manufacture of our product line. The plant data captures highest use materials on a site-by-site basis rather than specific categories of process materials. Consequently, comprehensive data for process materials other than diesel fuel and natural gas are not currently available.

Diesel fuel/fuel oil quantities represent fuels used in product testing applications as well as power generation activities.

Diesel Fuel/Fuel Oil:

2001	5,592,000	gallons		
2002	7,272,000	gallons		
			-	 

Natural Gas:

2002 852,694,593 cubic feet	2001 640,174,606 cubic feet
	2002 852,694,593 cubic feet

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

Cummins manufacturing operations utilize electricity, natural gas, diesel and propane as the primary s o u rces of energy. The energy data provided below represents electricity used at our facilities to generate power for manufacturing operations and facility heating and cooling purposes.

#### Direct: (totals in gigajoules)

- Hood (lotato III gigalosico)
Fuel Oil:
2001 140,173
2002 145,814
Natural Gas:
2001 704,860
2002 939,352
Propane:
2001 1,766
2002 5,685
Indirect:
Electricity:
2001 412,885,464 kwh
2002 406,827,851 kwh
2001 1.49 gigajoules
2002 1.46 gigajoules

#### Facility Production Context and How It Impacts This Section

Cummins manufactured and shipped 8 percent more engines in 2002 than 2001, but approximately 14 percent fewer generator sets over that timeframe. Since engine performance testing ramps up with increasing production, associated fuel use can be expected to increase as well. Overall, fuel use in 2002 decreased slightly from 2001. Therefore, the substantial apparent increase in fuel use reflected in the totals presented in this report can be attributed to a lack of 2001 fuel use data for one of the European generator locations.

#### Total Water Use

The following water use data were derived from annual totals for each of the 16 manufacturing facilities and includes water used for industrial and consumptive purposes.

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#### **Greenhouse Gas Emissions**

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totals in metric tons		
Direct	CO2	N2O
Fuel Oil 2001	9,852.91	10.56
Fuel Oil 2002	10,249.47	10.99
Natural gas 2001	35,017.55	29.03
Natural Gas 2002	46,642.39	38.67
Propane 2001	107.04	0.16
Propane 2002	344.51	0.51
Diesel 2001	47,094	645.59
Diesel 2002	63,827	874.85
Indirect	CO2	
Electricity 2001	373,661.34	
Electricity 2002	368,179.21	

N2O and CO2 totals were derived using World Resources Institute GHG Emissions Protocols. All N2O and CO2 data associated with diesel fuel were derived using U.S. EPA AP-42 Compilation of Air Pollutant Emissions Factors.

#### **Ozone Depleting Substances**

In May of 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 Ozone Depleting Substances (ODS) equipment.

#### **Significant Air Emissions**

Emissions to air from facility operations; all data in metric tons.

	2001	2002	
NOx	1,268	1,718	
CO	273	370	
SOx	83	113	
PM10	89	121	
VOCs	317	319.5	

Data for NOx, CO, SOx, PM10 and CO2 are based on diesel fuel used in product testing applications and were derived using United States EPA AP-42 Compilation of Air Pollutant Emission Factors, 1996. VOC totals are based on throughput and VOC content of the significant VOC sources at each reporting site.

#### 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 permit and/or regulatory requirements, quantify materials for which monetary returns are available on a weight or volumetric basis and to document as environmental performance measures. Waste and recycled material quantities are presented in aggregate. Data has been rounded to the nearest whole number. Categories are defined and materials quantified as follows:

**Landfilled Industrial Waste:** Includes industrial wastes that are 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 and that is not specially regulated due to toxicity. These data represent actual weights disposed with the exception of one location where filter cake is tracked on a volumetric basis. Total weights for this location, therefore, are based on a multiplier of estimated unit weights.

		0
2001:	2,008 short tons	
2002:	1,571 short tons.	

**General Refuse:** Includes largely non-process derived wastes that are not recyclable or otherwise are not captured in recycling efforts and are therefore disposed in a landfill.

2001: 5,224 short tons 2002: 4,806 short tons

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

Iron and Steel:		
	2001: 66,756 short tons	
	2002: 79,318 short tons	
Aluminu	im:	
	2001: 241.5 short tons	
	2002: 352.3 short tons	
Copper and Brass and Other:		
	2001: 391 short tons	
	2002: 330 short tons	

**Other Recycled Materials:** These include shop and office materials reprocessed for re-use outside the facility. Data for recycled wood understates the true volume of material recycled, since at several locations volumes are quantified as "loads" where actual weights are unavailable and load weight estimates were unreliable.

Cardbo	oard:		
	2001: 3,024 short tons		
	2002: 3,344 short tons		
Paper:			
	2001: 289,341 tons		
	2002: 267,295 tons		
Wood:			
	2001: 3,666 short tons		
	2002: 2,897 short tons		
Plastic	:		
	2001: 49 short tons		
	2002: 62 short tons		

**Reused Liquid Wastes:** These represent industrial process wastes that are reclaimed for re-use or otherwise re-used based on Btu content as feedstock in cement kilns or fuels blended. These include used oil, coolants, solvents and thinners — including residual fluids primarily from painting processes that are regulated as hazardous under the United States Resource Conservation and Recovery Act.

2001: 734,065 gals 2002: 505,141 gals

#### Significant Discharges to Water

The discharges quantified below represent an attempt to capture industrial process wastewater and do not include sanitary systems derived wastes or water loss from HVAC systems. All wastewaters quantified in this section are discharged to public treatment works.

Discharges 2001: 80,126,000 gals Discharges 2002: 76,906,000 gals

#### SIGNIFICANT SPILLS OF CHEMICALS, OILS, AND FUELS

Cummins has not experienced a significant spill originating from any of our facilities within the 2001 and 2002 sustainability reporting timeframe.

#### INCIDENTS AND FINES FOR NON-COMPLIANCE

Fleetguard Cookeville, Tenn.

As reported by Fleetguard in the Annual Compliance Certification (ACC) for 2001 and in the Semi-Annual Reports (SARs) for the periods of January 1, 2001, to June 30, 2001, and January 1, 2002, to June 30, 2002, the Cookeville, Tenn., facility failed to record the daily pressure drop readings for some of the baghouses associated with its production processes on two separate occasions during the specified reporting periods. Fleetguard reported in its SAR that the cause of the failure to record the pressure drop readings was addressed on March 1, 2002. As a result of its failure to record these data, the Cookeville facility was issued a Notice of Violation dated December 31, 2002, for failure to comply with its Title V Operating Permit. The facility was subsequently issued a \$9,000 civil penalty on March 28, 2003. No additional compliance actions have been issued against the Cookeville facility since this issue was resolved.

Consolidated Diesel Corp. (CDC) Whitakers, N. C.

The CDC engine assembly plant, a joint venture with Case Corp., had operated an undersized wastewater treatment system. Wastewater treatment problems were ongoing and periodic exceedances of discharge parameters resulted in \$800 in non-compliance penalties in 2001 and \$700 in 2002. During that period and beyond, the system improvements were evaluated and implemented. Utimately, \$1,800,000 in system improvements were completed. As a result, CDC is in continuous compliance with its discharge permit conditions.

#### Charleston, S.C.

On February 13, 2003, the South Carolina Department of Health and Environmental Control conducted an inspection of Cummins to determine compliance with the South Carolina Hazardous Waste Management Regulations. During the inspection, the Department observed and documented violations specific to federal hazardous waste management regulations. The alleged violations were associated with waste storage, labeling and record-keeping and resulted in a \$15,000 penalty.

#### CUMMINS AND ISO 14001

Cummins recently began implementation of its ISO 14001 Environmental Management System (EMS). ISO 14001 is a voluntary international quality standard that establishes the requirements

for an EMS and helps integrate the system with the overall business management processes.

The implementation of common systems makes it easier for us to share best practices, communicate and effect changes in various site systems.

The Cummins Environmental system includes policy, planning, implementation and operation, checking and corrective action and management review, with a commitment to continual improvement.

This improvement can take many forms, ranging from enhancements in communications and employee awareness to stronger environmental performance and emergency planning and response programs.

Currently, 17 Cummins manufacturing facilities are registered to ISO 14001 standards, and two others have been recommended for registration. The majority of the remaining facilities are expected to be audited and registered by the end of 2004.

The following Cummins facilities are successfully registered to the ISO 14001 standard:

Site	Location
Daventry	UK
Fgd Quimper	France
Holset UK	UK
Darlington	UK
Nelson, Mineral Pt.	USA
SLP	Mexico
Nelson Viroqua	USA
Nelson - Arcadia	USA
Nelson Wautoma	USA
CIC/CKEC	USA
Newage/Stamford	UK
Holset Charleston	USA
Nelson Neils W	USA
DCEC/CXMC	Dongfeng China
COER Toronto	Canada
Fuel Systems	USA
CMEP	USA

Customers, such as the Ford Motor Company, are increasingly requiring suppliers to obtain ISO 14001 certification. As a supplier to Ford, the Fleetguard/Nelson Mineral Point facility, part of the Wisconsin Operations performance cell, became the first Cummins location in North America to receive the certification.

The Darlington Engine Plant (DEP) in County Durham, U.K., was certified to the ISO 14001 standard based on two years of work and improvements led by "The Green Team." The improvements included bulk storage facilities, which are now more secure against damage and spillage, better control of waste management contractors and a reduction in the amount of special waste produced.

In preparation for its certification in late 2002, the Cummins Industrial Center (CIC) and Cummins Komatsu Engine Company (CKEC), in Seymour, Ind., held an 'Environmental Awareness Day' to showcase plant environmental achievements and to heighten awareness about a number of "green" issues. Awareness Day included a poster contest for children, prizes for the participants and hands-on demonstrations by the Indiana Department of Natural Resources Wildlife Management Division and the Seymour Recycling Center.

#### **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. The Company was able to reduce those expenditures from \$41 m i llion to \$36.7 million from 2001 to 2002 because of its energy conservation efforts.



Much of this reduction can be attributed to Six Sigma improvement efforts that focused on energy consumption and costs. Some examples of some of the projects at various facilities that contributed to this reduced energy use include:

- The Onan facility at Fridley, Minn., replaced an unreliable 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. Onan 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 rebate from our utility 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 at Lakewood, N.Y. Smilarly, a computer-based lighting control system was used to shut off lights in the Columbus-based Fuel Systems Plant in certain areas during non-p roduction periods. A manual program to conserve electricity in office areas during unoccupied times also was instituted.
- The Daventry Engine Plant at Daventry, England, installed the proper size accumulators on the block line to store hydraulic energy. At the same time, they lowered air pressure set points to reduce compressed air energy consumption.

- Cummins India Ltd. at Pune, India, had an aggre ssive energy efficiency program that included replacing older compressed air systems with a high efficiency system, including controls, compressor, piping, dryers and receivers.
- At the Cummins Technical Center at Columbus, Ind., computer-monitored sensors and controls and an auto-paging system for key test cell e q u i pment were installed to alert technicians prior to equipment failure system shutdowns. That effort i m p roved test cell uptime and eliminated test re petition.
- 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 we re cleaned to improve light levels and light d i sbursement. All compressors were linked via trunk cabling and a software package installed to manage the overall plant compressed air function (load sharing).

### 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 eliminated the NOx and particulates previously discharged 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 Governmentcertified thermal plants, rather than being sent to a landfill.

Steve Knaebel, President and General Manager of Cummsa, was re-elected in June to the Board of Directors of the Mexican Fund for the Conservation of Nature, on which he served previously from 1995 to 2002. He also was elected Chairman of the Board of EARTH University in Costa Rica, where he has been a board member since 1999 and previously was Vice-Chairman. 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. Three-quarters of its graduates return to work and live in rural areas.

# **GLOBAL INVOLVEMENT**

1.4.1.1.1

#### Social Performance

At Cummins, corporate responsibility means serving and improving the communities in which we live. It has defined the character of the Company since its founding statement of purpose in 1919, "To provide employment for the young men of Columbus, Indiana." Although that phrasing is a bit dated today, the tenor of the sentiment remains clear.

Over its 84-year history, Cummins has expanded into new markets and established businesses in communities throughout the world. Yet, corporate social responsibility remains a fundamental part of the way we operate in every community. A corporate social responsibility department sets strategic direction and promotes programs, but the real corporate social responsibility is the result of the daily actions of Cummins employees.

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. Likewise, the Clessie Cummins clinic – named for the Company's founder – has been providing needed medical care for residents in the state for a decade. In both cases, Cummins was the primary driver in getting the projects off the ground and continues to pay to feed the staff, maintain the facilities and fund other activities.

Seven 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 wrestling with ways to fund construction of a new middle school, the company contributed nearly \$1.3 million to the effort.

From 2000-2002, the Cummins Foundation provided nearly \$3 million in direct support to non-profit organizations in Indiana. The Foundation also provided

#### 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.

Cummins, through the Cummins India Foundation, has helped bring the school to the children. Pune's first "school on wheels" – a customdesigned 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.



Cummins CEO Tim Solso helps launch the first School on Wheels in Pune, India. Cummins donated the bus and continues to provide significant support for the project.

another \$1.9 million in support to United Way organizations across the state and another \$270,000 to United Way organizations outside Indiana during that period.

Such efforts are one of the reasons Cummins earned the No. 2 spot in 2003 on Business Ethics magazine's list of "Best Corporate Citizens" among the 1,000 largest U.S. companies.

Corporate social responsibility at Cummins has three primary areas of focus: community involvement, the Cummins Foundation and corporate donations.

**Community involvement** is how we leverage the real power of Cummins in serving and improving communities. Community Involvement Teams are employeedriven committees representing the diversity of the workforce and all levels of management. Each team establishes a work plan, a budget and the focus area for community service. Every two years all Community In volvement 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

#### The Ashleigh Erin Foundation – South Africa

Cummins has taken an active role in providing technical and engineering education to South African high schoolage 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 in the process of establishing a multi-purpose technical skills training institute that will provide students a chance to gain the skills employers in the country, including Cummins, 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 serving many of the country's most disadvantaged residents. **The Cummins Foundation,** which is supported solely through resources prov i ded by the parent company, has as its mission 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.

The Cummins Foundation Board of Directors has three guiding objectives:

- 1) Serve and improve Cummins communities around the world
- 2) Seek opportunities to make a significant impact
- 3) Provide access, tools and services to people left out of the mainstream of society

This alignment of direction across the globe empowers local management with the flexibility to develop innovative ways to meet the needs of our diverse communities, cultures and populations.

In North America, the Plant Innovation Fund encourages plants to compete for a restricted number of sizable grants based on a request for proposal process.

This program encourages local leadership to take the initiative to survey their community, determine where there are gaps or problems and to develop partnerships with existing services and agencies that find creative ways to meet those needs.

Some examples from the most recent grants include:

- 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, N.Y.
- Materials and support for multi-lingual classes in Lake Mills, Iowa
- A childcare program for homeless children, ages five and younger, in Memphis
- A crisis nursery for abused children in Fridley, Minn.

**Corporate 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. In the past three years, Cummins has donated more than \$700,000 to causes across the United States.

For a full accounting of Cummins charitable giving for the years 2000-2002, see the charts appended to this report. <u>(Click on the report cover) >>></u>



# DIVERSITY

"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."

for Milla

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

Mr. Miller's words, spoken 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, we believe that successfully managing diversity strengthens relationships with our increasingly diverse customer base. Beyond that, a diverse work force – in terms of race, gender, lifestyle and educational background – ensures a variety of perspectives when it comes to looking for ways to best address the needs of our customers.

At Cummins, we embrace diversity with more than just words. Some examples:

• All employees complete a comprehensive diversity training program designed exclusively for Cummins shortly after joining the company. "Second generation" diversity training is a mandatory part of the career development path for high potential employees.

• 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. This group meets quarterly to discuss diversity across the company.

• 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 address issues such as recruiting, retention and cultural differences in the workplace.

• Cummins has long worked hard to find and patronize qualified minority-owned suppliers, and that effort is yielding even greater results in recent years. In 2002, Cummins spent more than \$100 million with small business and minority-owned suppliers and that figured is expected to increase to \$115 million this year. The Company's Minority Business Enterprise and office of Diversity Procurement actively identify segments of the supply chain where minority-owned companies could cost-effectively perform work for Cummins. And, more than 50 businesses attended Cummins' Diversity Procurement Conference this year, where they were given direct access to purchasing representatives from across the company.

• Cummins offers health care and other benefits to non-spousal domestic partners. In making these benefits available to life partners of our employees (both same-sex and opposite-sex partners) we recognize that in order to be an employer of choice, Cummins needs to provide attractive and flexible programs to all employees. • Cummins has received local, state and national recognition for its work in this area, including being named this year by Fortune magazine as one of the 50 best places to work for minorities (for the second time in three years).

The company's business practices also have been recognized by Business Ethics magazine, which this year placed Cummins No. 2 on its list of "best corporate citizens" from among the 1,000 largest companies in the United States. Cummins has made the list all four years it has been compiled by Business Ethics.

#### **CONTACTS**

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