

**WE** MEASURE SUCCESS BY THE LONG-TERM PROGRESS OF THE COMPANY... BECAUSE OF THIS APPROACH, WE'RE ABLE TO DO WHAT WE DO BEST – LEVERAGE INNOVATION AND SUSTAINABILITY, **BUILD** SOLUTIONS FOR CUSTOMERS, SUPPORT COMMUNITIES WHERE WE LIVE, AND PROTECT THE **ENVIRONMENTS** WHERE WE OPERATE.

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JM's 2013 Sustainability Report, *We Build Environments*, has been created in alignment with Global Reporting Initiative (GRI) G3.1 Guidelines at a B Application Level. For more about this report, see page 31.

# A Message from JM Leadership

In 2013, JM focused on creating an exceptional experience for our stakeholders around the world – what we call the *JM Experience*. The foundation of the experience is based upon the core values shaped by our long history: people – our differentiator; passion – our motivation; performance – our engine; and protection – our responsibility.

By living our values, we create an experience so powerful for our employees and our customers that it drives lasting relationships, sustainable competitive advantage, and profitable growth. For employees, that experience includes providing a safe, healthy, and inclusive work environment where they can grow and thrive.

For customers, the experience is about providing innovative solutions that enhance energy efficiency, protection, and durability for buildings and engineered environments. JM products like fiber glass and foam insulation provide comfort as well as energy-related cost savings to consumers in various locations and climates. As important, we offer customers the type of relationship that only comes from people who care deeply about them.

We also deliver the *JM Experience* to the communities where we live and work. JM has a long history of philanthropy and volunteerism and in this last year, we provided support to communities hit by devastating floods, tornadoes, wild fires and drought. In 2013, we saw a dramatic increase in the number of volunteer projects conducted by our facilities, as well as a significant increase in the number of JM volunteers.

We show our environmental respect for the global community through our efforts to reduce waste and inefficiencies throughout our entire value chain. I'm pleased to report that in 2013 JM reduced its waste intensity by over 8 percent compared with 2012. In particular, I want to congratulate the employees of our Scottsboro, Alabama plant for being awarded JM's Environmental Excellence Award for their efforts toward achieving their "zero waste" goal in 2013.

Driving long-term sustainability is never easy. Like others in our industry, we are exposed to market fluctuations that can have a significant impact on our product mix and operating capacity. In 2013, energy and greenhouse gas intensity increased over the prior year but we have never lost sight of our goal and remain focused on improving this performance.

JM is fortunate to be owned by Berkshire Hathaway, one of the world's most-admired companies. We align with Mr. Buffett's belief that measures success by the long-term progress of the company, allowing us to focus not just on next year but on the next 10, 20 and 30 years. Because of this approach, we're able to do what **we** do best – leverage innovation and sustainability,

**build** solutions for customers, support the communities where we live, and protect the **environments** where we operate. I want to thank all of JM's employees for creating enduring value by delivering positive and powerful *JM Experiences* every day.



**Mary Rhinehart**  
President & Chief Executive Officer

## Opportunity in Every Day

Every morning brings with it a world with new potential. New technologies, new challenges, new competitors and new risks rise with the sun to shift the dynamics of the business ecosystem. These daily currents of change are sometimes subtle, even undetectable. However, sustainable businesses recognize that each day also presents tremendous opportunity to fuel growth, drive innovation and foster ongoing learning.

Organizations that embrace sustainability exhibit the vision to adapt to the changing world, and the integrity to take steps toward that vision in a responsible and ethical manner. Companies like JM, which have stood the test of time, realize that building a sustainable business doesn't have to be overtly disruptive, extremely complex or exorbitantly costly. Rather, sustainability is something that occurs one day at a time, guided by hard-working people dedicated to creating more value today than there was yesterday, and who are excited by the possibilities that tomorrow may hold. It isn't about short-term gains or campaigns but rather about improving the long-term competitive position, which protects returns on our invested capital.

Under Mary Rhinehart's first full year as CEO of JM, continued focus on innovation and sustainability have resulted in improved financial results. As JM publishes its third sustainability report, I congratulate them on their achievement, and look forward to the progress that each new day may bring.



**Warren E. Buffett**  
Chairman of the Board  
Berkshire Hathaway Inc.

FOR OVER 155 YEARS JM HAS BEEN MAKING A POSITIVE CONTRIBUTION TO SOCIETY BY OFFERING **BUILDING** AND SPECIALTY MATERIALS THAT MAKE HUMAN ENVIRONMENTS MORE ENERGY EFFICIENT, DURABLE AND COMFORTABLE. THROUGHOUT THESE YEARS THERE HAS BEEN **A** PERPETUAL COMMITMENT TO **SUSTAINABLE** PRINCIPLES AND A BRIGHTER **FUTURE.**

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**IN THIS SECTION:**

*Q&A with JM's Chief Sustainability Officer / 2013 Performance Summary / Energy and Carbon Intensity / Recycled Materials / Solid Waste Intensity / Water / Toxins / Social Aspects / Organizational Profile / Description / Markets / Revenues / Global Workforce / Wages / Governance / JM Operations / Valuing Our Stakeholders / Identification / Engagement / Materiality*

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## Q&A with JM's Chief Sustainability Officer

### 1. What were the key sustainability highlights from 2013?

We made some good progress on our sustainability efforts in 2013, but we also had some challenges. On the environmental side, we added new goals associated with third-party audits that helped us focus those efforts. On the energy side we had some great successes with projects such as lighting retrofits in many of our manufacturing locations, but didn't move the needle on our efforts to reduce energy intensity overall. We also made nice progress on many of our social focus areas; however, although we remain better than the industry average on safety, we actually saw a slight increase in our injury rates in 2013.

Another success was the conversion of our building insulation products to a new bio-based binder, which is highlighted on page 18 of this report. Our sustainability focus ensures we are constantly searching for opportunities like this.

### 2. What were the biggest sustainability challenges JM faced in 2013?

Our two largest disappointments were energy intensity and workforce safety. We won't meet our energy goal, which was to reduce energy intensity by 5 percent by 2014. We will readdress this goal at the end of 2014 but in the meantime we continue our efforts to improve the energy efficiency of our facilities. Since 2010, JM has completed nearly 150 energy efficiency and conservation projects with an energy savings of over 600,000 Gigajoules – about 4 percent of our overall energy usage in 2013. In the last year alone, we invested in excess of \$12 million in energy projects.

As I mentioned, we also were disappointed in our safety results. We track rates, but safety is about people and we never want to see any of our people injured in the job. Unfortunately, we saw a slight increase year-over-year rather than achieving our ongoing goal to reduce our injury rates by 10 percent annually.

### 3. Can you describe JM's approach to implementing sustainability throughout the company?

JM has three major strategic initiatives – sustainability, innovation and productivity – which are interwoven in many ways. Innovation and sustainability, especially, have a symbiotic relationship. Our focus on these three strategic initiatives ensures we are continuously working on embedding them across our businesses.

#### **4. How have sustainability initiatives driven internal efficiency for JM?**

Sustainability touches nearly everything we do, from recruiting to operating our factories. In fact, most employees hired recently looked at our sustainability report as one way to assess their interest in joining our company.

Whether it's selecting raw materials that need less energy to process, improving our flame-retardant packaging, developing new ways to optimize glass melting or simply just using less material, sustainability is a key business lever.

Also sustainability is driving the great progress we have made at some of our manufacturing sites in reducing materials sent to the landfill.

#### **5. Can you comment on a specific example of sustainability being integrated into the business processes that aligns with JM's corporate strategy?**

One of the most significant ways we incorporate sustainability is by ensuring it is addressed in our strategic planning process, where our businesses annually assess both the opportunities and challenges facing them.

#### **6. How does JM's sustainability strategy improve its overall competitive position?**

It's another business lever. It ensures our business and thought processes are focused on new dimensions for future growth. It's interesting that we are seeing more of our competitors starting to see value in sustainability reporting.

#### **7. What role does sustainability play in product design and development?**

Reducing our energy and carbon footprint influences our R&D and technology planning. It's also a key component in our design approach, where we take sustainability into account in every stage in our product-development process. For instance, it was a strong factor in the development of our water-borne adhesive for roofing and when we developed recyclable structural thermoplastics.

#### **8. How has your role as CSO and R&D leader evolved over the past two years? What insights can you provide?**

Clearly, the jobs have a lot of synergies. We formalized my role as CSO two years ago by incorporating it into my existing responsibilities as head of research and development. We are beginning to see more and more companies moving in this direction – combining innovation and sustainability.

As head of R&D, I have access to and control of a lot more resources, and I can leverage the R&D resources embedded across our business for the purpose of sustainability. We don't believe the right approach is a separate sustainability organization, which can slow down progress and may not have the ability to directly impact decisions.

#### **9. What's in store for JM's sustainability strategy and practices in 2014?**

Our strategy won't change – our areas of focus remain the same and we don't see that changing. However, sustainability is a journey and over the past several years we have learned a lot, including that we didn't create the most meaningful goals in all cases. Some we will meet and others we won't. In every case, however, having a goal helped ensure we assigned resources and developed plans to make progress. Since many of our goals have deadlines for 2014, later this year the Sustainability Council and JM's other senior leaders will reassess what is most meaningful and where we should focus our attention going forward.

#### **10. What are the most pertinent sustainability issues facing the building materials industry today? How might this change in the future?**

The public and government agencies are taking a harder look at the chemicals to which consumers are exposed. This has been evident in the ban on and phasing out of certain brominated fire retardants, such as Hexabromocyclododecane (HBCD) used in extruded polystyrene, and the increase in listed 'chemicals of concern' by the U.S. Environmental Protection Agency (EPA), including Methylene Diphenyl Diisocyanate (MDI). The building materials industry must rise to the challenge by providing materials containing alternative chemicals that are lower in hazard and exposure.

Besides the increased scrutiny on traditional chemicals, an emerging trend is toward the public asking for more transparency about product composition and manufacturing in the form of life cycle assessments. This trend demands that manufacturers like Johns Manville find a way to satisfy consumers that our products are safe and good for the environment while safeguarding proprietary information. Another challenge for the building materials industry is the durability and performance of buildings. As buildings become more energy efficient and "airtight," manufacturers like Johns Manville must provide construction guidance to ensure that the safety and durability of the building is not compromised. Energy efficiency of buildings is a huge opportunity that must be met with good construction practices to be fully realized.

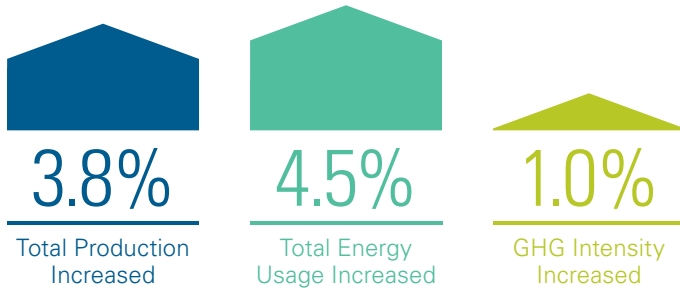
#### **11. What innovations are you seeing in the industry that will make building materials more sustainable?**

We are seeing increased development of both renewably sourced chemicals and alternatives to traditional chemicals that are safer for workers, consumers and the environment. Beyond our commitment to removing formaldehyde in 2001 within our building insulation product line and introducing a bio-based binder for fiber glass insulation in 2012, Johns Manville continually seeks out novel, renewably sourced and environmentally less hazardous chemicals. We are seeing new offerings in fire retardants that provide alternatives to halogenated chemicals that have come under scrutiny in the U.S. and EU.

# 2013 Performance Summary

**Energy and Carbon Intensity:** Implemented energy reduction projects towards the goal of improving energy efficiency by 5 percent between 2010-2014.

**Performance: Percentage Change from 2012 to 2013**



Projects to reduce energy use and carbon intensity were applied in areas such as: boiler/HVAC system improvements; lighting retrofits and improvements; power quality improvements; air compressor improvements; and process equipment upgrades and replacement.

**Recycled Materials:** Continued to increase use of recycled content to manufacture JM products.

**Performance:** Building Insulation business increased average recycled content in fiber glass batt insulation from 25 percent to 35 percent; Micro-Lok® HP fiber glass pipe and equipment insulation increased post-consumer recycled content from 31 percent to 36 percent.

Roofing Systems' Fesco product line continues to contain 34 percent recycled paper, on average; and recycled content is optimized in many other Roofing Systems products including membranes and polyiso insulation.

**Solid Waste Intensity<sup>1</sup>:** Implemented waste reduction projects towards the goal of reducing solid waste intensity by 10 percent between 2010-2014. JM remains on track to achieve a five-year 10 percent reduction goal in solid waste intensity over the baseline established in 2010.

**Performance:**



**Water:** Baseline water usage and discharge company-wide where economically and technically feasible.

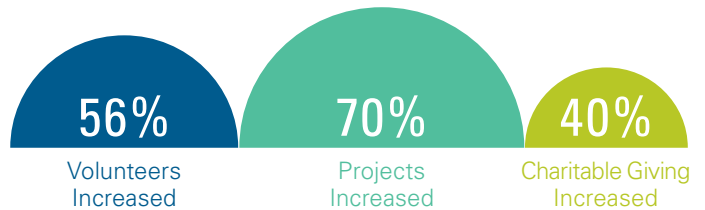
**Performance:** For 2013, a baseline of fresh water usage was compiled for all JM locations worldwide. The baseline includes municipal, well and surface water sources for each location where applicable and available. Based on this baseline, future water-based actions will be established.

**Toxins:** Continued to identify the presence of carcinogens, mutagens and reproductive toxins (CMRs) and created prioritized strategies to reduce or eliminate CMRs in JM finished products.

**Performance:** Most HVAC and OEM insulation products became free of decabromo diphenyl ether in 2013 and all HVAC and OEM insulation products will be 100 percent free in 2014. In 2013, JM identified the flame retardant, antimony oxide, for removal from the adhesive used to attach facings on certain HVAC insulation products. These antimony compounds will be removed from HVAC duct board and duct wrap products during 2014. JM is being proactive in Europe on reducing/eliminating formaldehyde from nonwoven binder systems in response to consumer demand.

**Social Aspects:** Focused on establishing processes and action plans to achieve the five-year targets identified in the associated areas of: performance management; people development; health, wellness and safety; human rights and ethical treatment in employment; and community investment.

**Performance: Percentage Change from 2012 to 2013**



- Employees underwent more than 71,000 hours in safety and environmental training and an additional 70,000 hours of training in areas that include leadership, management, compliance, language, personal development and technology for an average of 20 hours of training per employee.
- 57 percent of eligible employees participated in JM's health and wellness programs, a 22 percent increase over 2012.
- Safety incident rates increased by 12 percent. JM refocused its efforts on safety to reverse this trend. For example, the Roofing Systems plants, which saw the largest increase in incidence rates, took a day in the Fall of 2013 where all operations were shut down so the day's time could be focused solely on safety.
- 14 citations were issued for violations in health and safety regulations worldwide, with four later withdrawn by the issuing agency and six others classified as "other-than-serious"; zero work-related fatalities occurred in 2013.
- 98 percent of salaried employees received performance reviews and 98 percent have written and approved goals.
- Number of volunteers increased 56 percent from 1,450 to 2,263; number of volunteer projects increased nearly 70 percent to 165; volunteer hours decreased by 18 percent to 7,632 hours.
- Financial contributions to charitable organizations increased 40 percent to \$450,000.

<sup>1</sup> Solid waste intensity is defined as solid waste sent to RCRA Subtitle D Landfills per unit of production.



# Organizational Profile

Johns Manville (JM), a Berkshire Hathaway (NYSE: BRK.A; BRK.B) company, is a leading manufacturer and marketer of premium-quality products for building insulation, mechanical insulation, commercial roofing and roof insulation, as well as fibers and nonwovens for commercial, industrial and residential applications.

Our company serves markets that include aerospace, automotive and transportation, air handling, appliance, HVAC, pipe and equipment, filtration, waterproofing, building, flooring, interiors and wind energy. JM conducts business through four strategic business units including Engineered Products Americas, Engineered Products Europe/Asia, Insulation Systems and Roofing Systems. We transport nearly 12,000 products to about 4,200 customers worldwide.

In business since 1858, JM holds leadership positions in all of the key markets that we serve. Operating 45 manufacturing facilities located in the United States, Canada, Sweden, Germany, Slovakia and China, the company achieved sales of approximately \$2.5 billion in 2013.<sup>1</sup> As a United States-based company, our world headquarters are located in Denver, Colorado. Aggregate employee wages worldwide totaled nearly \$446 million in 2013 and the cost of employee benefits just over \$162 million.<sup>2</sup>

# Company Governance

As an operating business of Berkshire Hathaway, JM is managed on a decentralized basis with minimal involvement by its parent company in the day-to-day business activities. Berkshire Hathaway's corporate management participates in decisions associated with significant capital allocation, investment activities and the selection of JM's President and Chief Executive Officer. JM management also regularly attends the Berkshire Hathaway annual shareholder meeting in official capacities.

JM is led by President and Chief Executive Officer Mary Rhinehart, who reports directly to Berkshire Hathaway. The heads of JM's businesses and functional areas, including our Chief Sustainability Officer, report directly to Ms. Rhinehart. JM's CEO is responsible for evaluating the performance of her direct reports with respect to meeting economic, social and environmental policies.

A board of directors consisting of our President & CEO, CFO, General Counsel, and the Financial Assistant to the Chairman of Berkshire Hathaway governs JM. Of the governing board, 75 percent are women and none are associated with other minority groups.<sup>3</sup>

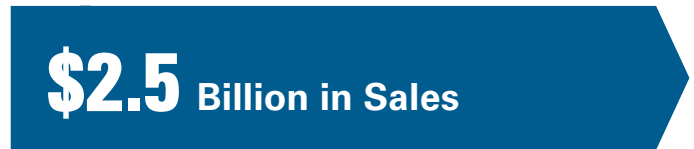
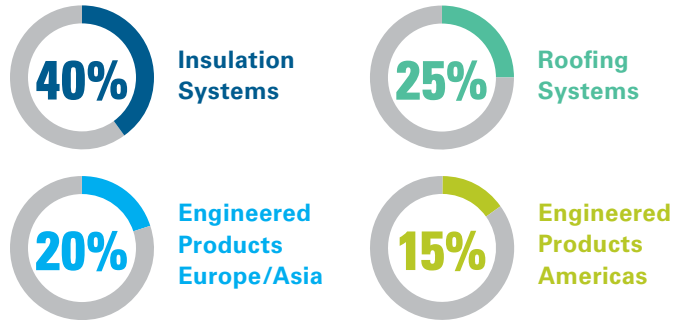
Economic, social and environmental policies are set at the corporate level with associated priorities established annually. JM's board of directors and sustainability council consisting

1 As a wholly owned subsidiary of Berkshire Hathaway JM does not publicly disclose detailed financial information.  
 2 Benefits include health and other insurance, pension, 401(k) and other miscellaneous benefits.  
 3 Of the governing board, three are women, one less than age 30, one 30-50 years of age, one over age 50; and one man over age 50.



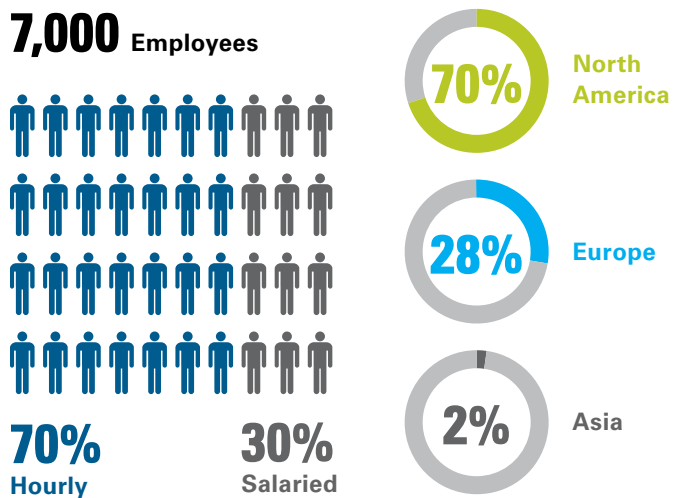
## Revenues by Business

2013



## Global Workforce

By Geographic Region



of the senior leadership team and other key managers, as well as employees from other areas of the business, identify opportunities, assess risks, and develop mechanisms for measuring progress toward goals as part of the strategic planning process.

Overall performance is measured in terms of the company as a whole, with sustainability considered a component of performance. Compensation is tied to overall performance; however, decisions may also be impacted by global economic conditions and by meeting or exceeding individuals' annual performance priorities. The company regularly reviews the compensation structure of the organization to ensure that its overall elements are competitive and equitable.

# JM Operations

## Insulation Systems

- Phenix City, AL
- Tucson, AZ
- Willows, CA
- Innisfail, AB Canada
- Fruita, CO
- Brunswick, GA
- Winder, GA
- Richmond, IN
- McPherson, KS
- Ruston, LA
- Belgrade, MT
- Edison, NJ
- Penbryn, NJ
- Defiance, OH
- Cleburne, TX
- Houston, TX
- Richmond, VA



## Engineered Products Americas

- Tucson, AZ
- Richland, MS
- Defiance, OH
- Waterville, OH
- Spartanburg, SC
- Etowah, TN
- Cleburne, TX



## Engineered Products Europe / Asia

- Luoyang, Henan, China
- Qingpu, Shanghai, China
- Berlin, Germany
- Bobingen, Germany
- Karlstein, Germany
- Steinach, Germany
- Wertheim, Germany
- Trnava, Slovakia
- Helsingborg, Sweden

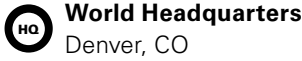


## Roofing Systems

- Scottsboro, AL
- South Gate, CA
- Cornwall, ON Canada
- Jacksonville, FL
- Macon, GA
- Rockdale, IL
- Bremen, IN
- Lewiston, ME
- Fernley, NV
- Plattsburgh, NY
- Milan, OH
- Oklahoma City, OK
- Hazle Township, PA

## Technical Centers

- Littleton, CO
- Waterville, OH
- Bobingen, Germany
- Wertheim, Germany
- Trnava, Slovakia





# Valuing Our Stakeholders

Stakeholders play an instrumental role in JM’s success as an organization. The input, dialogue, and insight resulting from an active engagement of stakeholders help to shape the ways that JM satisfies customers while providing value from an economic, environmental and social perspective to the many constituencies that we serve. Each year, JM embarks on a comprehensive process to identify high-priority stakeholder groups that may significantly influence and be affected by company activities. The concerns of these groups constitute a platform upon which a sustainable business strategy is refined, while also bringing to light material issues that may provide opportunities for JM or pose future risks. The material aspects important to stakeholders have provided a platform informing the boundary of this report. In 2013, high-priority stakeholders included the following groups:

- **Customers** – Business-to-business and business-to-consumer, product/construction specifiers, contractors, distributors, architects, mechanical engineers, roofing consultants and building occupants.
- **Employees and Retirees** – JM employees across the globe in all functions of the business and retirees.
- **Suppliers** – Providers of raw materials and production inputs, utilities, transportation and logistical resources, packaging material manufacturers and other providers of materials and services necessary to create products and provide services.
- **Communities** – Employee family members and neighbors residing in the areas where we live and work.
- **Government, Policymakers, Regulators and Code Bodies** - Legislators, municipal, state and federal government agencies, public authorities and certifying and code bodies that are non-governmental organizations or private companies.
- **The Environment** – The planet, its inhabitants, natural resources and ecosystems.

In order to understand the needs, concerns and effects of stakeholder opinion, JM is committed to implementing numerous activities that engage and motivate stakeholder groups. These activities are initiated throughout the year and include the following types of engagement mechanisms:

- Customers are frequently engaged through ad-hoc customer service surveys; daily face-to-face meetings; monthly, quarterly and annual customer events; industry trade shows and online communication channels, such as social media and the JM.com website.
- Employees are engaged on a daily basis through employee surveys, face-to-face meetings, web conferencing, employee training sessions or engagement activities, leadership conferences, and the JM.com and intranet sites.
- Suppliers are engaged daily via discussions about purchase specifications, joint business initiatives, questionnaires, corrective action assessments, and interactions in contract development and reviews.

- North American, European, and Asian communities frequently connect with the company throughout the year in various ways that include yearly open houses, manufacturing plant tours, and local hiring events. JM also facilitates community outreach through volunteering opportunities, community disaster relief, corporate donations, and online through social media and the JM.com website.
- Government agencies, regulators and code and certifying bodies are engaged periodically throughout the year by working with trade associations that assist with developing industry regulations. JM relies on trade associations to stay current on public policy issues surrounding energy efficiency and the environment, including national and local building codes (see Alliances and Partnerships, page 27). Our company does not have political action committees or conduct its own lobbying activities. JM representatives strive to meet the requirements of social, health, safety, and environmental regulations to ensure compliance while contributing proactively to the formation of proposed building codes and standards.
- JM works to continually be a steward to the planet, its inhabitants, and ecological systems by frequently evaluating the company’s impact via air and water testing, and by monitoring its operational systems. JM is diligent in finding opportunities to source recycled materials and reduce the stream of waste to landfill, while producing products that reduce the amount of energy consumed throughout its life cycle.

# The Importance of Materiality

## Topics in Focus



To better understand the impacts of our business and prioritize the topics of interest to our organization, customers, and diverse stakeholder groups, JM exerts significant energy to identify and address the most material sustainability issues on a continual basis. As it pertains to our sustainability reporting process, we perform a comprehensive evaluation of material aspects from one year to the next and make adjustments based on changes to our business, the marketplace, and insights collected through activities that foster stakeholder inclusiveness. During the 2013 reporting period, JM identified numerous material topics that guide the content boundary of this report. The selection of specific sustainability aspects reflect JM’s economic, environmental and social impacts, with consideration toward how these aspects may influence the decisions and interests of the stakeholders we serve.

# JM'S CUSTOMERS ARE FOCUSED ON PROVIDING CONSUMERS WITH THE BEST **BUILDING** AND SPECIALTY MATERIALS THEY CAN FIND. EVERY DAY, JM EMPLOYEES ARE WORKING TO DELIVER **SUSTAINABLE** VALUE TO OUR CUSTOMERS BY ADDRESSING THEIR MARKET CHALLENGES WITH POWERFUL **SOLUTIONS.**

## IN THIS SECTION:

*We Build Energy Efficiency / Benefits of Insulation / Case Study: JM WHQ Renovation / Built to Last / Benefits of Reinforcements / Membranes / Case Study: Protecting High-Altitude Institutions and Students with Invinsa® / Built for Life / Benefits of Filtration / Improving Air & Liquid Quality / Enhancing Thermoplastic Performance with ThermoFlow® Chopped Strands*

## We Build Energy Efficiency

Many consumers are not aware that residential homes are the largest single source of energy consumption and that a typical house can release up to twice the amount of carbon dioxide annually as an average car. In the U.S. alone, 50 million homes are under-insulated, so there's a significant opportunity to increase energy efficiency and reduce energy demand.<sup>1</sup> Additionally, within the European Union energy is being lost through under-insulated buildings at a cost of over \$370 billion annually.<sup>2</sup> Producing and consuming this energy is costly, both economically and environmentally. JM manufactures products that increase the energy efficiency of homes, buildings, cars and appliances, resulting in reduced energy consumption and greenhouse gas emissions. In fact, building insulation products utilized in single-family homes save more energy in the first three months after installation than was used to manufacture the insulation.

For every pound of carbon dioxide emitted in the production of insulation, 330 pounds of carbon dioxide are avoided by the use of insulation over its average life.<sup>1</sup>

JM is the only manufacturer of both fiber glass and spray foam insulation. JM Corbond III® closed-cell spray polyurethane foam insulation now delivers the thermal performance of R-7.0 per inch, a change that translates to a 9 percent increase in thermal resistance compared with the previous versions of the product. Spray foam insulation provides thermal, air and moisture isolation for the building over the life of the structure. Establishing an effective air barrier is the #1 contributor to creating energy-efficient structures.<sup>3</sup> Reducing air infiltration leads to a reduction in energy consumption resulting in lower emissions of CO<sub>2</sub> and other air emissions produced during the energy generation process.



Studies by the National Institute of Standards & Technology report that creating effective air barriers can reduce air leakage by up to 83 percent.<sup>4</sup>

JM's Roofing Systems business is a technology leader focused on delivering true integration of roofing components into robust systems that address customers' needs. In 2013, JM developed ENRGY™ Curb, a proprietary lightweight structural support technology to accommodate rigid crystalline silicon solar photovoltaic (PV) modules. ENRGY™ Curb is unlike many solar PV mounting systems currently on the market because it utilizes roofing technologies and practices for attachment to the building that do not rely on additional penetrations and/or excessive weight.

- 1 North American Insulation Manufacturers Association
- 2 European Insulation Manufacturers Association
- 3 United States Green Building Council
- 4 Investigation of the Impact of Commercial Building Envelope Airtightness on HVAC Energy Use, NISTIR 7238



## Case Study: JM World Headquarters Raises the Bar on Sustainability

Johns Manville Plaza is a 29-story LEED for Existing Buildings Gold-certified office building located in downtown Denver. In 2013, JM worked with the building owner of Johns Manville Plaza to renovate the floors housing JM's corporate headquarters, resulting in significant improvement to the sustainability of the premises. After evaluating several options, including construction at a new location, JM chose to renovate its existing office space to accomplish several sustainability objectives:

- Improve the well-being and productivity of employees;
- Reduce energy consumption and CO<sub>2</sub> emissions;
- Maintain accessibility to both public and private transportation; and
- Utilize sustainable products, practices and systems.



### **JM and its partners incorporated sustainability into every aspect of the renovation project, including:**

- Installing a state-of-the-art energy management system;
- Optimizing natural lighting to improve the quality of the indoor work environment;
- Broadly using energy-efficient designs, products and appliances;
- Sourcing labor locally;
- Using materials with recycled content as well as recycling old building materials for waste reduction;
- Utilizing sustainable products including those from JM's customers and sister Berkshire Hathaway companies; and
- Achieving efficient use of office space through shared working areas and other sustainable design.



Through the application of these concrete measures, JM was able to reduce its overall ecological footprint plus improve the productivity and well-being of employees.



# Built to Last



Whether increasing the efficiency of HVAC, providing a strong foundation to flooring products, adding strength to composite automotive parts, protecting gypsum drywall against moisture, or extending the life of roofing systems, materials with long-service lives contribute to extended product lifecycles that impact sustainability in a positive way.

For example, glass-fiber-reinforced composites continue to play an important role in making vehicles lighter and more fuel-efficient. JM’s reactive glass fiber, StarRov® RXN for structural thermoplastic composites (STPC) is ready to respond to the growing demand for high-strength thermoplastics used to produce today’s automobiles. New products introduced in Europe and Asia during 2013 target new markets for thermoplastic composites and for advanced nonwovens for start/stop lead-acid batteries. And our nonwovens used in bitumen membranes and shingles add resilience and strength for roofing systems that last.

In the U.S., we introduced Invinsa® FR Roof Board for the commercial roofing market. With the highest compressive strength in the high-density coverboard market, combined with a savings of up to five tons of dead weight for every 100 square feet, Invinsa FR provides first-class roofing system protection and performance. Invinsa FR delivers added performance for single ply roofing systems installed over combustible decks by offering UL® Class A certifications.

*Invinsa FR products earned top honors in the ‘Building Envelope’ category of the 2013 Architectural Products Product Innovation Awards.*

## CASE STUDY

### JM Roofing System Protects High-Altitude Institution and Students with Invinsa®



Basalt is a quaint town nestled between world-class ski resorts and gold medal trout streams in the Roaring Fork Valley outside Aspen, Colorado – situated at more than a mile in elevation with its share of weather challenges: snowstorms, wind, and cold, followed by intense sun. The Roaring Fork School District had been struggling for years with roof systems that didn’t meet expectations or stand up to repeated weather assaults. Working with its designers and specifiers, the school district expressed its preference for a high-performance, longer-service roof and guarantee. After evaluating numerous assemblies, the school district chose a JM EPDM roofing system with Invinsa® FR, securing a UL® Class A fire-rated solution and a 30-year guarantee. The roofing system now provides the school district with a high-performing solution and long-term peace of mind.



TRNAVA, SLOVAKIA FACILITY

## Built for Life

JM is one of the largest glass microfiber air media and polyester spunbond producers in the world. With our world-class expertise and technology, we hold a leading market position in filtration media that enables our customers to provide filter solutions for improved air quality and liquid purity. Our extensive product portfolio consists of polyester spunbonds, polypropylene meltblown, airlaid glass, multilayer composites, as well as glass microfibers for the filtration media industry. By inhibiting the movement of impurities, filters with JM materials support improved indoor air quality, liquid purity and cleaner pools.

JM's full breadth of capabilities in filtration media enable our materials to meet a wide range of end-use applications, which include homes, offices, industrial spaces, and automobiles, as well as pharmaceutical and electronic cleanrooms. JM's bag filter HVAC media effectively filter fine dust particles, bacteria, paint pigment and tobacco smoke. The filtration materials offer the efficiency associated with mechanical filtration, high dust-holding capacity and low pressure drop, which result in energy savings for filter end-users.

In 2013, we completed an investment in the Wertheim, Germany plant to expand capacity and boost production of glass microfiber filtration media. We also started the construction of a new spunbond nonwovens line in Berlin, Germany utilizing the latest manufacturing technologies to preserve resources. With the start of the new production line in 2015, a new generation of polyester spunbond filter media for cabin air, air pollution control and liquid filtration applications will expand the Evalith® product range.

The expanded capacity in Wertheim and the investments that are being made at our Berlin facility are excellent examples of JM's commitment to the filtration industry. These investments are part of a strategic plan to support the growing demand for high-end filtration nonwovens.

JM also announced plans to rebuild and upgrade the EU's largest and most productive E-glass furnace located in Trnava, Slovakia to service the increasing needs of the composite industry.

After years of product and application development in ThermoFlow® chopped strands, JM will support the growth of the engineered thermoplastic segment. We achieved "food contact compliance" for the thermoplastic market in Europe two years ahead of EU directives. Our new ThermoFlow® 674 and 601 chopped strands, as well as ThermoFlow® 636 used in polypropylene, provide material engineers the needed flexibility to enhance thermoplastic performance when plastic materials and articles are intended to come into contact with food.

Finally, JM has enhanced its robust insulation offering by adding mineral wool insulation products for commercial and residential markets. Mineral wool is a high R-value insulation solution with excellent acoustical performance, that can help delay the spread of fire due to the material's high melting point - in excess of 2000°F. Products such as JM's TempControl Batts™ and Sound & Fire Block Batts™ are lightweight, noncombustible and contribute to fire-resistance ratings in wood-studded cavities. In addition, MinWool® Safing insulation creates a fire-rated seal when used between the spandrel panel and floor slab in commercial curtainwall systems. When installed in this manner, MinWool Safing prevents flame and smoke from passing through openings that may penetrate these assemblies.



AT JM, WE BELIEVE THAT **BUILDING** A SUSTAINABLE COMPANY MEANS THAT WE STRIVE TO CONTINUALLY IMPROVE OUR PRODUCTS AND PRACTICES TO MINIMIZE OUR **ENVIRONMENTAL** IMPACT. WE **RESPECT** THE EARTH'S RESOURCES, AND STEWARD THE SYSTEMS AND INHABITANTS THAT MAKE THESE RESOURCES AVAILABLE TO OUR BUSINESS.

**IN THIS SECTION:**

*Environmental Focus / Enhancing Operational Efficiencies / ISO 14001 / Energy Efficiency / Energy Consumption / Energy Saved / Air & HAP Emissions / Production / Energy Use / GHG Intensity / Carbon Footprint & Greenhouse Gas Emissions / Focus on Energy Efficiency / Case Study: Refinements, Redesigns and Retrofits / Recycled / Renewable Materials / Recycled Content / Renewable Content / Case Study: The Virtuous Circle of Glass / Waste Management / Environmental Health and Safety / Water / Spills / NOVs / Product Stewardship / Product Safety / Toxins / Case Study: Removal of Antimony Reflects JM's Responsiveness / Life Cycle Assessments / Supply Chain Management / Transportation*

## Environmental Focus

Responsible environmental management is an integral part of JM's business strategy and correlates directly with our ability to continue doing business in the years to come. We are fully committed to operating our business in compliance with all environmental regulations, while protecting natural resources, employees, neighbors, customers and the environment for the benefit of future generations. JM's focus is on continual improvement to reduce the environmental effects of our operations while delivering products that reduce energy consumption.

**We manage our environmental impacts by:**

- Developing and using innovative technology and processes to prevent adverse impacts from company operations on public and employee health in addition to the environment;
- Conducting both internal and independent assessments of compliance, continuously tracking the health, safety and environmental performance of each operating facility while complying with all applicable laws and regulations in each location in which the company operates;
- Providing leadership within our business segments to establish effective environmental, safety and occupational health standards and procedures;
- Periodically reviewing our environmental policy in light of our current and planned activities;
- Holding every employee responsible for implementing our safety practices and our corporate health, safety and environmental policy; and,
- Manufacturing and selling products that can be used safely when appropriate work practices are followed.



Since 2012, when JM first introduced a corporate ISO 14001 Environmental Management System (EMS), the company has continued to expand the programs at key manufacturing facilities. In 2013, six additional operations (Lewiston, ME; JM Technical Center, Littleton, CO; Spartanburg, SC; Milan, OH, Belgrade, MT; and both plants in Defiance, OH) adopted ISO 14001. This allows JM businesses to better evaluate environmental risks, identify opportunities for more sustainable performance, and enhance the level of management controls. In 2012, JM's European nonwovens business acquired ISO 50001 Energy Management System certification at all five German manufacturing sites. The ISO 50001 certification requires that these facilities demonstrate energy intensity improvements every year.

# Energy Efficiency

JM is committed to optimizing energy efficiency through enhanced monitoring and monthly reporting of our manufacturing facilities through our Total Utility Management System (TUMS), in an effort to reduce our energy and carbon intensity over time. We pursue continuous research and development that aims to improve the performance of our manufacturing machinery, operational processes and employee behavior that contribute to saving energy. Each of these areas of improvement supports our ability to manufacture JM products with less energy and emissions per unit of production.

Because manufacturing activities are the primary source of the company's direct and indirect energy use, JM has endeavored to improve operational efficiencies at a number of our manufacturing plants. Since 2010, JM has completed nearly 150 energy efficiency projects resulting in a cumulative energy savings of over 600,000 Gigajoules, corresponding to a 4 percent reduction of overall JM energy usage in 2013. Key improvements were made in the following areas:

- Boiler/HVAC systems;
- Lighting retrofits and improvements that integrate energy-efficient bulb technology and motion sensors, while providing better illumination;
- Power quality;
- Air compressors that replaced antiquated equipment with current technology while optimizing air pressure levels; and,
- Manufacturing process to reduce air leakage and wasted energy.

Since our baseline measurement year of 2010, JM's energy intensity has increased by 0.8 percent. While the company has worked to achieve overall reduction in energy intensity, markets have been influential in determining the product manufacturing mix that made net-negative reductions challenging. In 2013, JM's overall production increased by 3.8 percent while energy usage also increased by 4.5 percent. This was due primarily to increased consumer demand for products requiring more energy-intensive manufacturing processes.

## Total Direct and Indirect Energy Consumption<sup>6</sup>

In Gigajoules<sup>1</sup>

Direct	2011 <sup>2</sup>	2012 <sup>2</sup>	2013 <sup>3</sup>
LPG <sup>5</sup>	668	1240	859
Natural Gas	9,248,937	9,072,684	9,384,070
<b>Total Direct:</b>	<b>9,249,605</b>	<b>9,073,924</b>	<b>9,384,929</b>
Indirect	2011 <sup>2</sup>	2012 <sup>2</sup>	2013 <sup>3</sup>
Electricity	5,152,176	5,132,743	5,459,062
<b>Total:</b>	<b>14,401,781<sup>4</sup></b>	<b>14,206,668<sup>4</sup></b>	<b>14,843,991<sup>4</sup></b>

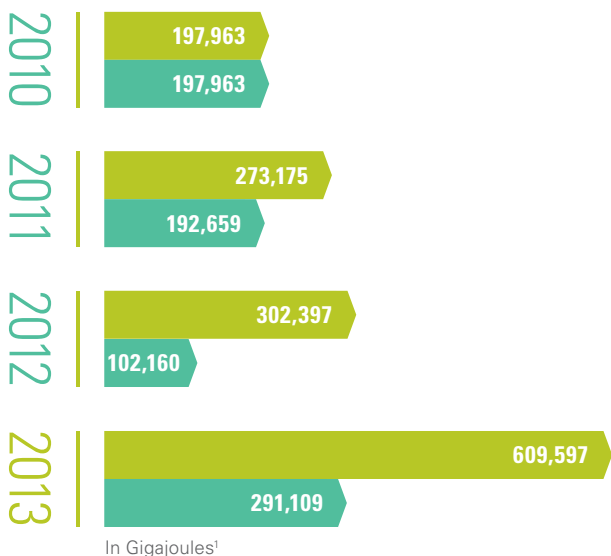
## Direct versus Indirect Energy

Consumption by Primary Energy Source



## Energy Saved Due to Conservation and Efficiency Improvements

	Energy Savings for Projects Commissioned	Cumulative Energy Savings for All Projects
	Percent Savings	Percent Savings
<b>2010</b>	1.42%	1.42%
<b>2011</b>	1.34%	1.90%
<b>2012</b>	0.72%	2.13%
<b>2013</b>	<b>1.96%</b>	<b>4.11%</b>



- Cumulative Energy Savings for All Projects
- Energy Savings for Projects Commissioned

1 One gigajoule is equal to approximately 278 kilowatt hours of electricity or 26 cubic meters of natural gas.  
 2 Data provided in earlier reports may differ from 2013 report due to the implementation of more accurate measurement methodology.  
 3 Numbers are qualified as JM's best estimate based on available information at time of publication.  
 4 Due to a LPG usage rates usage unit of measure conversion correction, 2011 and 2012 numbers have changed from the previous year's report. 2013 data uses the correct unit of measure.  
 5 LPG stands for liquefied petroleum gas.  
 6 GHG, Direct and Indirect Energy (electric) calculations based on EPA's Emissions & Generation Resource Integrated Database (eGRID) default emission factors. eGRID uses primary fuel mixtures by region. Emission calculations also based on The Climate Registry's 2013 Default Emission Factors, Table 14.2 and the U.S. Department of Energy Information Administration Form EIA-1605 (2007) Foreign Electricity Emission Factors, 1999-2002.

## Non-GHG Regulated Air Emissions by Pollutant Category<sup>3</sup>

Air Emissions (2013) in Kg

Air Emissions	2010 <sup>2</sup>	2011 <sup>2</sup>	2012 <sup>3</sup>
Carbon Monoxide	3,237,379	3,540,281	3,004,974
Particulate Matter	1,546,628	1,569,216	1,316,457
Volatile Organic Compounds	1,002,888	983,733	827,049
Nitrogen Oxides	809,084	851,175	802,794
Sulfur Dioxide	176,975	220,689	212,566
<b>Total Criteria Pollutant Emissions:</b>	<b>6,772,955</b>	<b>7,165,093</b>	<b>6,163,840</b>

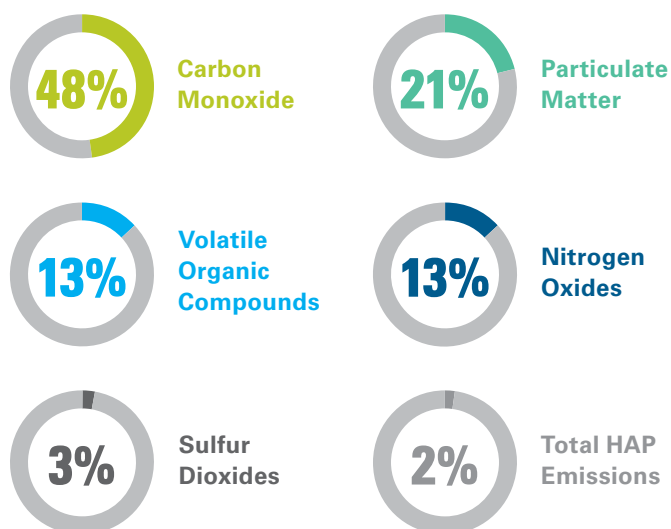
Hazardous Air Pollutants (HAP)	2010 <sup>2</sup>	2011 <sup>2</sup>	2012 <sup>3</sup>
Formaldehyde	89,444	62,781	63,911
Phenol	23,142	22,748	22,921
Methanol	12,446	12,976	17,857
Acetaldehyde	3,592	3,683	3,311
Hexane	1,838	1,335	1,941
Toluene	859	726	374
Hydrogen Fluoride	3,246	11,974	12,048
Xylenes	167	69	205
Benzene	42	4	3
Lead Compounds <sup>4</sup>	33	24	30
Chromium Compounds	36	137	116
Cobalt Compounds	21	25	15
Naphthalene	2	2	2

**Total Hap Emissions:** 2010<sup>2</sup> 134,868 | 2011<sup>2</sup> 116,484 | 2012<sup>3</sup> 122,734

**Total Air Emissions:** 2010<sup>2</sup> 6,907,823 | 2011<sup>2</sup> 7,281,577 | 2012<sup>3</sup> 6,286,574

- 2012 Air Emissions and HAP data is the latest available. 2013 data will be reported in the 2014 JM Sustainability Report. Other environmental data reflects the past year (2013).
- Data provided in earlier reports may differ from 2013 report due to the implementation of more accurate measurement methodology.
- Air emissions include emissions reported to regulatory agencies and monitored as required by permit.
- Includes elemental lead.
- GHG, Direct and Indirect Energy (electric) calculations based on EPA's Emissions & Generation Resource Integrated Database (eGRID) default emission factors. eGRID uses primary fuel mixtures by region. Emission calculations also based on The Climate Registry's 2013 Default Emission Factors, Table 14.2 and the U.S. Department of Energy Information Administration Form EIA-1605 (2007) Foreign Electricity Emission Factors, 1999-2002.

## Non-GHG Regulated Air Emissions by Pollutant Category<sup>1</sup>



## Total Direct and Indirect Greenhouse Gas Emissions<sup>5</sup>

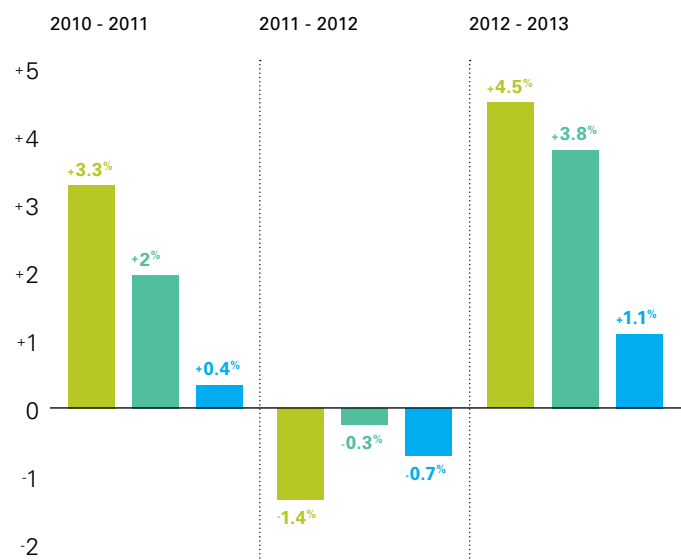
Tonnes (metric) CO<sub>2</sub>e

Source:	2011 <sup>2</sup>	2012 <sup>2</sup>	2013 <sup>3</sup>
Direct:	514,212	507,481	535,997
Indirect:	992,747	985,115	1,030,395
<b>Total:</b>	<b>1,506,959</b>	<b>1,492,596</b>	<b>1,566,392</b>

Note: CO<sub>2</sub>e stands for carbon dioxide equivalents.

## Energy Usage, Production, GHG Intensity

Percent Change from 2010 to 2013



■ Energy Usage ■ Production ■ GHG Intensity

## CASE STUDY

### JM Process Refinements, Redesigns and Retrofits at Manufacturing Plants Across America.

The biggest energy-saving highlights from JM's 2013 sustainability program involved significant process refinements, redesigns and retrofits at our manufacturing plants across America. These projects produced significant reductions in areas such as carbon emissions, energy use and volatile organic compounds into the earth's atmosphere.

In 2013, JM upgraded the lighting systems of many North American plants, with \$1.5 million of rebates realized from the various energy efficiency programs managed by our utilities, \$4.5 million in EPA Act Federal tax deductions, and \$2.5 million in cost savings by reducing annual energy consumption by over 40 million KWh. By employing local contractors, lighting designers, manufacturers and consultants, the retrofit projects injected money into the local economies while positioning JM with the ability to benefit from savings for years to come. The projects proved beneficial for the company, communities, utilities and environment, making it truly an overwhelming success.

For example, outdated lighting systems at our plant in Richmond, IN, were retrofitted to accommodate more efficient light bulb technologies with occupancy sensing controls and LED signage. JM replaced high-bay lighting fixtures, installed sensors that turn fixtures off when space is not occupied, and better capitalized on the presence of abundant natural light. As a result, the Richmond facility reduced its annual energy consumption from lighting by approximately 80 percent and reduced emissions by more than four million pounds of carbon dioxide, more than 20,000 pounds of sulfur dioxide, and approximately 5,000 pounds of nitrogen oxides on an annual basis.

JM's Willows, CA plant completed two projects that included the increase of one of its manufacturing line's recycled glass content from 50 to 68 percent in building insulation products plus an upgrade to its lighting to high-efficiency LED fixtures. These two projects are expected to result in a savings of up to 1.5 million KWh of electricity, which translates to a yearly power savings of nearly \$139,000.

JM's Spartanburg, SC plant is currently involved in a multi-year project to improve energy efficiencies including optimizing loads to electric transformers thus allowing for the idling of two transformer units; fixing leaks in steam, air and water systems; plus installing new lighting systems. To date, this project has resulted in savings of 6 MWh of electricity equating to a reduction of three metric tonnes of carbon dioxide equivalent emissions at the point of energy generation.

Finally, our plant in Edison, NJ was acknowledged by the New Jersey Department of Environmental Protection for its voluntary and proactive efforts to improve the environment. The recognition cited four specific initiatives: energy savings projects including a lighting retrofit where dated T8 fluorescent light fixtures were replaced with pulse-start metal halide fixtures; installation of a new variable frequency drive air-compressor; institution of a zero waste to landfill program that features wood pallet, fiber glass, cardboard, paper, PVC, and scrap metal recycling; and transition to the ISO 14001 Environmental Management System, which is a company-wide strategy.

## Carbon Footprint and Greenhouse Gas Emissions



While climate change can be a controversial subject, the weight of scientific evidence is that greenhouse gas emissions from human activity are causing the earth to warm, with all the climate disruption that entails. The fact that there may be some lingering doubt about climate change only serves to highlight the need for action now that offers benefits even if the worst case climate predictions are not realized.

Fortunately, with our focus on making products that enhance energy efficiency, Johns Manville products play a significant role in reducing greenhouse gas emissions and provide, in effect, a less costly form of energy to our customers. As regulatory agencies move to establish GHG emissions limits on both new and existing power plants, JM will remain actively engaged with its trade associations and non-government organization allies to ensure that energy efficiency for the end-user is promoted.

Enhancing the energy efficiency of homes, buildings, cars, airplanes and appliances makes tremendous sense regardless of the outcome of emerging power plant regulations. In 2013, JM publicly supported the introduction of the SAVE (Sensible Accounting to Value Energy) Act, a bipartisan bill in the U.S. aimed at encouraging greater investment in insulation in addition to other solutions to improve home energy efficiency.



## Recycled and Renewable Materials

JM looks to increase the use of recycled material. Our product lines have specific performance requirements and supply chain considerations. In addition, customers and end users have their own preferences.

JM is one of the largest manufacturers of fiber glass building insulation in North America. Fiber glass insulation is the largest secondary market for recycled glass containers. According to recent surveys, U.S. manufacturers used almost 1.6 billion pounds of recycled glass in the production of residential, commercial, industrial, and air handling insulation, while Canadian insulation manufacturers used nearly 300 million pounds of recycled glass in the production of insulation products.<sup>1</sup> Recycled materials reduce our demand for virgin natural resources and the amount of energy required in our manufacturing processes, all while saving landfill space by diverting glass containers from the solid waste stream. In addition, using recycled glass reduces direct and indirect air emissions by up to 20 percent and reduces water pollution by 50 percent.<sup>2</sup>

In 2013 JM took another step towards product-specific recycled content reporting by group specific averaging. The result increased its building insulation North American average recycled content from 25 to 35 percent. In addition, Micro-Lok® HP fiber glass pipe insulation post-consumer recycled content increased from 31 to 36 percent.



Our European polyester spunbond bituminous roofing products contain recycled PET from post-consumer beverage bottles. In Roofing Systems, our Fesco® roofing product line on average contains 34 percent recycled paper, while our ENRGY 3 polyiso roof insulation products contain between 16 to 40 percent recycled content.

1 Insulation Facts #45, The North American Insulation Manufacturers Association (NAIMA), October 2013.

2 EPA, Resource Conservation, Common Waste and Materials, Recycling.

## Renewable Content



Beginning in 2012, JM began transitioning the Canadian market to an innovative bio-based, formaldehyde-free binder for light density fiber glass building insulation products. Because these products are made primarily of plant-based materials, our new binder satisfies growing demand for agriculturally sourced products.

In 2013, JM introduced our duct wrap insulation and flexible duct media customers to the new binder. By early 2014, JM will have completed the transition to the new bio-based binder for our North American Formaldehyde-free™ building insulation products.

Feedback from the marketplace has been extremely positive – confirming that installers enjoy the benefits of using the bio-based binder, which include improved handling, easier cutting and less dust. The integration of bio-based materials also benefit specifiers and building owners looking to acquire credits toward LEED certification.

### CASE STUDY

#### The Virtuous Circle of Glass



In order to increase recycled content in our products, JM relies on partners to provide adequate supplies of highly specified materials. For example, our partner Rumpke Recycling recently expanded its glass recovery system in Ohio to add equipment necessary to screen, clean and sort glass that is processed into cullet and ultimately used in one of JM's plants in Ohio that manufactures insulation. It's estimated that 90 percent of Ohio's post-consumer glass ends up in landfills, so this is a good opportunity to assist with productive use of the glass containers that usually head into the waste stream.



## Waste Management

Striving for operational excellence is a fundamental priority for JM, including the minimization of waste throughout our manufacturing processes and administrative functions. This priority includes designing products and operating our manufacturing equipment for optimum efficiencies, and recycling or reusing materials to minimize waste material sent to landfills. Extensive employee training and involvement is another key ingredient. By eliminating waste, JM reduces our use of natural resources and minimizes impacts to the environment.

In 2013, JM presented its first-ever JM Environmental Excellence Award to the Scottsboro, AL plant in recognition of its efforts toward achieving zero waste to landfills. The Scottsboro facility is located 40 miles east of Huntsville, AL and employs about 50 people. The state-of-the-art facility produces thermoplastic polyolefin (TPO) roofing membranes to meet demands of a rapidly expanding single ply commercial roofing market.

The Scottsboro facility initiated a robust program targeting sustained and beneficial reductions of solid waste being sent to the local landfill for disposal. The program includes increasing first pass yields in production and compacting waste materials. In 2013, the facility achieved a 49 percent reduction of solid waste shipped to landfills. The facility has reduced its waste intensity by 86 percent since 2010.

### Notable waste reduction achievements were also accomplished by several other facilities including:

- **Cleburne, TX** reduced hazardous waste generated by 55 percent in 2013 over baseline year of 2010, eliminating over 256 tons of hazardous waste in 2013.
- **Helsingborg, Sweden** facility reduced its waste intensity 96 percent since 2010 by developing partnerships with private and public entities to reuse its glass wastes and convert other waste into energy for the local community.
- **Edison, NJ** instituted a formal zero waste to the landfill policy that features the recycling of wood pallets, fiber glass, cardboard, paper, PVC and scrap metal.
- **Jacksonville, FL** reduced its waste intensity 31 percent since 2010 by improving first pass yields in the manufacturing process; recycling waste plastic wrap, paper and foil facers and cardboard cores; plus reducing the total quantity of process dust that goes into the landfill.

## Water is Life

Water is essential to our manufacturing operations across the globe. JM is fortunate to have most of its operations located in water-rich North America and Western Europe. However we need only look in our own back yard in Colorado to see that water availability can't be taken for granted. The Colorado River is a source of hydroelectric power, irrigation for some four million acres of land, water for 35 million people, and home to several species found nowhere else in the world. Unfortunately, the Colorado River is in the grips of a decade-long drought: in 2002 and again in 2012, total river run-off was among the five lowest years on record.<sup>1</sup> Elsewhere, China is home to 20 percent of the global population but only 7 percent of it is fresh water.<sup>2</sup>

While not a major impact area for JM, water stewardship is consistent with our core value of protecting employees, customers and the environment. JM's manufacturing operations often do not use potable water to cool equipment operating at high temperatures. The majority of the company's manufacturing plants deploy closed-loop systems that optimize water recovery. Process water is typically recycled and reused within the plant so there is minimal discharge into community wastewater treatment systems.

## Environmental Health and Safety

JM is adamant that business be conducted in a way that respects all employees and the environment as well as the regulations and mandates that protect the environment. Close monitoring of regulations and agreements, as well as investigation of any incidents that occur, help us to better evaluate and implement improvements to our operations, while enabling us to mitigate risk, minimize economic impacts and uphold our reputation. Globally, JM reported no significant spills at any of its locations in 2013. The company did receive four notices of violation (NOVs) regarding environmental laws and regulations. JM has responded identifying actions to prevent any recurrence of these issues. JM received no NOVs that resulted in any significant penalties or sanctions.

<sup>1</sup> The Pacific Institute, <http://www.pacinst.org/issues/sustainable-water-management-local-to-global/>

<sup>2</sup> Moving beyond business as usual: A need for a step change in water risk management, CDP Global Water Report 2013.

## Product Stewardship

Johns Manville's products help reduce the ecological impact of buildings, vehicles and other built environments throughout their life cycle. Our commitment to product stewardship ensures that we are focused on meeting customer needs by providing products that perform as expected, optimize the beneficial impacts in the built environment's operation and minimize any potential health and environmental effects. This commitment includes providing customers and installers with comprehensive guidance and data regarding the safe use and disposal of products supplied to them by JM. In addition, JM continually reviews and communicates to employees and customers about the potential hazards of our products. JM will never knowingly make or sell any product that cannot be manufactured and used safely when appropriate work practices and installation procedures are followed.

## Product Safety

Fiber glass and mineral wool insulation products are supported by over 75 years of scientific research. The weight of the scientific evidence and findings of authoritative medical and scientific bodies indicate that our building insulation products do not pose a cancer hazard, and that they are safe for workers involved in the manufacture or installation of these products when simple work practices are followed.<sup>1</sup>

## Toxins

Every year, JM conducts a thorough audit to evaluate, rate, and prioritize removal of CMRs (carcinogens, mutagens, and reproductive toxins) and VOCs (Volatile Organic Compounds) from products where feasible or desired by customers and consumers, as well as the scientific and regulatory community. JM's annual CMR audit informs and drives research and development teams to deliver solutions that continually make progress toward the responsible, efficient use of chemicals and materials in both products and packaging, and identifies the potential for proactive, early adopter opportunities. JM has developed a CMR prioritization tool that each business unit utilizes annually to identify the presence of CMRs and create prioritized strategies for reduction and/or elimination of CMRs in JM finished products.

<sup>1</sup> North American Insulation Manufacturers Association.

### CASE STUDY

### Removal of Antimony Reflects JM's Responsiveness.



In 2013, the Insulation Systems business identified the flame retardant, antimony oxide, for removal from the adhesive used to attach facings on certain HVAC insulation products. The removal of antimony reflects JM's responsiveness to regulatory concerns and consumer desires, and the company's ability to react quickly in providing solutions that meet the needs of the market. After trialing several less-hazardous antimony-free alternatives, JM selected one that meets product performance and safety specifications. We have achieved the necessary certifications from Underwriters Laboratories and began transitioning HVAC insulation products to antimony free in early 2014.

### Product Impact Information

Sourcing of Components	✓
Content That Might Produce Environmental Impacts	✓
Safe Use of Products	✓
Disposal of Products	✓

JM provides accessible and thorough information on the environmental impacts of 100 percent of our products.

## Life Cycle Assessments

JM continues to pursue life cycle assessments (LCA) as a tool to gain a clear understanding of the environmental impacts of products over their lifespan – including sourcing of raw materials, production, distribution, use and end-of-life considerations. Over the years, JM has also participated in a number of LCA programs funded by trade associations in which JM is a member.

In 2013, JM participated in the development of two product category rule (PCR) documents. A PCR is a set of specific rules, requirements, and guidelines for developing an environmental product declaration (EPD) for a specific product category. The PCR determines the type of information that should be gathered for an LCA and how the information is evaluated and communicated for an EPD. JM assisted the Single Ply Roofing Industry (SPRI) with development of a PCR for single ply roofing membranes in 2013. The PCR was developed in conjunction with ASTM International, which published the document in November 2013. JM is also working with the Asphalt Roofing Manufacturers Association (ARMA) on the development of a PCR for bituminous roofing. The document was also developed in conjunction with ASTM International and will be published in 2014.

JM's nonwovens business in Europe is targeting to complete LCAs at a product family level during 2014. Our synthetic and glass fiber nonwoven products are suited for many markets including construction, building interiors, filtration, batteries, composites and geotextiles.

JM actively participated in the efforts by the Spray Foam Coalition, a part of the Center for the Polyurethanes Industry, to adopt a new Spray Foam Code of Conduct that will provide for more standardized health and safety of workers and others around spray foam products in the field.

## Supply Chain Management

Johns Manville's suppliers are critical to ensuring that the products we make are safe and meet the highest standards for our customers. Our suppliers are evaluated to determine the extent of their capabilities and qualifications to compete prior to being invited to quote on major JM purchases. JM requires that its suppliers adhere to the highest ethical standards in the business, including complying with all applicable environmental, health and safety standards as well as laws related to child or forced labor and conflict minerals.

As part of JM's policy noted in our disclosure under the California Transparency in Supply Chains Act of 2010, JM conducted training of key members of its Global Supply Chain team on how to spot potential use of slave and child labor by suppliers.

We also believe that employees at our facilities as well as those of our direct suppliers have the right to freely choose employment. It is our policy not to purchase materials that are known to have been produced with slave, forced or child labor, or labor that has resulted from human trafficking.

JM does not currently have a formal policy to give preference to local suppliers. However, whenever possible, JM will competitively bid local suppliers within a manufacturing plant's geographic area. JM defines "local supplier" as being in the same country based on the ordering form and address for the vendor. The geographic location of a supplier is taken into consideration in terms of logistics from a cost and time-to-deliver perspective. Using the definition of "in country as based on the 'order-from' address for the supplier" as local, JM sourced 94 percent of its 2013 spend locally in North America.

## Transportation

Transportation is a critical component of JM's supply chain. Every day JM collaborates with our suppliers, shippers, and customers to optimize the efficiency of material and product transportation and thus reduce environmental impact. For example, JM follows multiple practices to reduce fuel use and increase efficiency by:

- Managing our own fleet of vehicles to improve fuel efficiency and reduce emissions, including participating in EPA's SmartWay Program;
- Using intermodal transportation to improve mileage, reduce fuel consumption and reduce emissions; and,
- Collaborating with our partners to ensure leading technologies and processes for fuel efficiencies are utilized including the use of electronic onboard recorders and auxiliary power units that reduce truck idle time and fuel waste.

Furthermore, JM continually seeks to optimize and reduce shipping distances between JM and its customers with an effective blend of localized manufacturing and distribution strategies.

**BUILDING** TRUSTWORTHY, EQUITABLE RELATIONSHIPS WITH THE PEOPLE WE EMPLOY AND LOCAL COMMUNITIES IS INSTRUMENTAL TO THE SUCCESS OF JM. **OUR** EFFORTS TO PROMOTE ETHICAL BUSINESS PRACTICES WHILE SUPPORTING MEANINGFUL CAUSES ALLOW US TO ENRICH THE FABRIC OF OUR **COMMUNITIES** AND PROVIDE GREAT SATISFACTION FOR ALL WHO CONTRIBUTE TO OUR BUSINESS.

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**IN THIS SECTION:**

*Built for Health and Safety / Training / Incidents / Rates / Built to Respect and Support / Diversity & Inclusiveness / Ethics / Human Rights / Training / Risk Management / Built to Make a Difference / Volunteerism & Monetary Contributions / Awards / Certifications / Alliances / Partnerships*

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## Built for Health and Safety

JM takes a no-compromise approach when it comes to the health and safety of employees. Safety is of the utmost importance to each of our employees and the family members who care about them. It is a commitment shared from one employee to another regardless of job function or location in the world. In order to create high-quality products that add value to society and the environment, JM employees must trust that their colleagues, training, and equipment are working together to foster a workplace that is safe.

JM's view on safety remains unchanged – the only acceptable number of workplace injuries is zero.

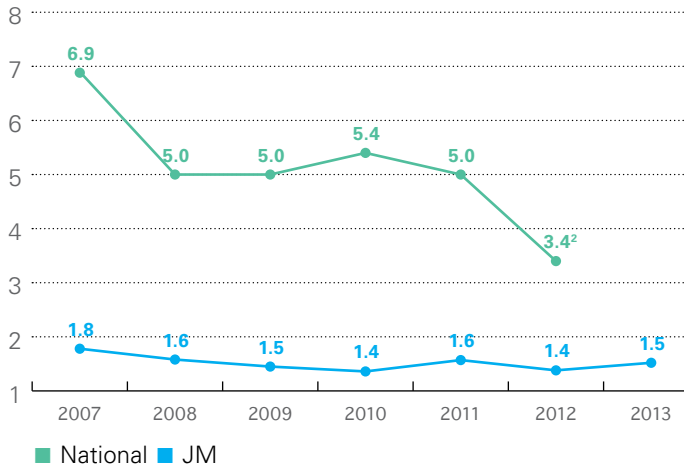
Safety training is provided to all JM employees around the world in areas such as basic first aid, fire prevention, hazardous chemical management and hearing conservation. In 2013 alone, JM employees received 71,000 hours of safety and environmental training. JM employees must demonstrate a satisfactory level of operational excellence and understanding of the job before being permitted to perform the job. Both management and supervised employees are expected to observe, promote, and practice safety in all aspects of their jobs in order to ensure that best practices are implemented while operating at a high level of performance.

At the plant level, JM's Scottsboro, AL facility was awarded OSHA's Voluntary Protection Program (VPP) "Star" status for the first time in 2013, bringing the total number of JM plants receiving this recognition to nine. OSHA VPP Star status is the highest level of achievement within the VPP program and acknowledges participants that demonstrate effective safety and health management. These select facilities have displayed outstanding results, utilizing programs and partnerships with facility employees that focus on employee safety. Health and safety is a priority at all JM facilities and is included in the formal agreements at the nine U.S. plants where trade unions exist. In the European Union, health and safety participation and provisions of personal protective equipment (PPE) are mandated by law rather than by union agreements.

JM actively monitors and tracks data regarding employee health and safety in order to gauge safety performance as well as identify opportunities for continued improvement. The investments in time, energy and capital have resulted in consistent performance and prevention in work-related incidents. There were 14 citations in 2013, with four subsequently withdrawn and six more classified as "other-than-serious." In addition, there were zero work-related fatalities during the year's operations.



### JM Total OSHA<sup>1</sup> Incident Rates versus National Rates

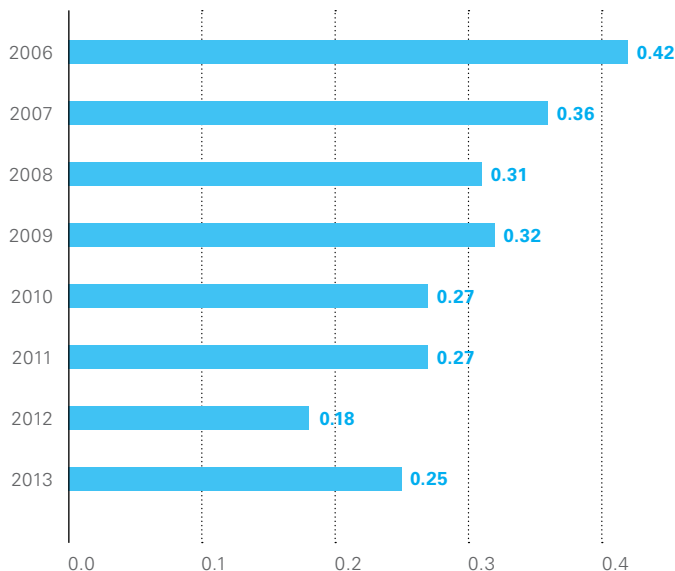


### JM U.S. Plants Awarded OSHA VPP Status

(As of year-end 2013)

Plant Name	Year First Awarded
Scottsboro, AL	2013
Tucson, AZ	2007
Willows, CA	2008
Jacksonville, FL	2008
Macon, GA	2007
McPherson, KS	2007
Lewiston, ME	2012
Richland, MS	2010
Fernley, NV	2010

### Lost Time Rates Chart<sup>3</sup>



Building on JM’s goal to develop criteria to track noise exposure-related health issues, the company has further implemented hearing conservation programs and projects that educate employees about the risks of noise as well as procedures to ensure that hearing is preserved. Nearly 55 Hearing Conservation Program projects have been completed, including an innovative Dangerous Decibel road show serving as the cornerstone. As part of this program, educational outreach was conducted at the JM Technical Center in Littleton, CO in parallel with “Take Your Child to Work Day.” Employees’ children could then take their learnings back to school for the benefit of their classmates. Ninety-five percent of all JM employees in the Hearing Conservation Program have an established personal attenuation rate (PAR)<sup>4</sup> and participated in hearing protection device (HPD) training. In 2013, JM was the recipient of the Safe-in-Sound Award™ for Innovation in Hearing Loss Prevention by the National Hearing Conservation Association. This award recognized the proactive approach JM has taken to reducing noise and ensuring that employees get the maximum efficacy from their hearing protection devices.

Because JM employees are the engine that drive productivity and innovation, it is vital that our people have access to resources to keep themselves and their families healthy. In 2013, 57 percent of eligible U.S. employees participated in the company-sponsored wellness program, up from 46 percent in the previous year. JM has continued to provide employees and their families with resources, tools, and treatment for stress management under the company Employee Assistance Programs. Financial, legal and family counseling resources are also provided as part of these employee-centered programs.

- 1 Occupational Safety and Health Administration, a U.S. agency charged with the enforcement of safety and health legislation.
- 2 U.S. Bureau of Labor Statistics National Rates, 2013 data not available.
- 3 Lost Time Rate: Rate of incidents involving workdays beyond the day of injury or onset of illness that the employee was away from work because of an occupational injury or illness, per 200,000 work hours.
- 4 PAR is a measure of the individualized noise reduction that an employee obtains from his or her hearing protection assessment.



## JM Social Sustainability Metrics - 2013

JM EE = Number of JM employee cases TP = Number of temporary employee cases

	Total Rates by Country	Total OSHA Recordable Cases				Occupational Diseases				Lost Day Cases				Fatality Cases			
		Male		Female		Male		Female		Male		Female		Male		Female	
		JMEE	TP	JMEE	TP	JMEE	TP	JMEE	TP	JMEE	TP	JMEE	TP	JMEE	TP	JMEE	TP
Canada	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Germany	<b>0.8</b>	<b>1.0</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>0.2</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Slovakia	<b>0.4</b>	<b>0.5</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sweden	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	<b>2.0</b>	<b>2.3</b>	<b>2.2</b>	<b>1.6</b>	0.0	<b>0.4</b>	0.0	<b>0.3</b>	0.0	<b>0.4</b>	<b>1.1</b>	<b>0.1</b>	0.0	0.0	0.0	0.0	0.0



### Employee Assistance Programs

	Workers	Workers' Families
Education/Training	✓	×
Counseling	✓	✓
Prevention/Risk Control	✓	×
Treatment	✓	✓

### Health and Safety Accolades in 2013

- **25 U.S. facilities** earned the National Safety Council (NSC) Occupational Excellence Achievement Award for having lost-time incidence rates less than 50 percent of the industry average for a plant's industry type and having no fatalities during the previous year.
- **The Engineered Products Europe/Asia** business had an improved safety record in 2013, with its nine plants reporting a total case incident rate 32 percent below target and 50 percent below the prior year, a lost-time incident rate 50 percent below target, and five of the nine plants having no recordable injuries.
- **Scottsboro, AL** plant is celebrating five years without a lost-time incident. The plant earned the 2012 Industry Leader Award from the National Safety Council, garnered for rating in the top 5 percent in its industry.
- **McPherson, KS** warehouse celebrated its 17th year without a recordable incident.
- **Macon, GA** plant celebrated three years with no lost-time incidents.
- **South Gate, CA** plant recently marked 18 years without a lost-time incident.
- **Richmond, IN** plant celebrated 1,000 days without a recordable incident.
- **Jacksonville, FL** celebrated one million man-hours without a lost-time incident; 1,291 days since the last restricted-duty incident; and 154 days since the last recordable incident.
- **Spartanburg, SC** plant also reached one million man-hours without a lost-time incident.

## Built to Respect and Support

Our marketplaces in North America, Europe and China are diverse, dynamic and constantly evolving. The very nature of our global business requires a tapestry of people, skills, backgrounds and thinking to successfully deliver a great customer experience. JM has built a respectful work environment where employees are appreciated, trusted and rewarded for working together. Every day, our employees are learning and trying new activities that create powerful experiences for all of JM's stakeholders.

Our commitment to diversity and inclusiveness increases our ability to attract, connect and retain the brightest talent in the market – helping to ensure JM's success. This includes gender-diversity practices that advance women to the top of the organization. Today, JM's management team is comprised of 30 percent women. A case in point is our President & CEO who started her career at JM right out of college over 30 years ago. JM's board of directors is chaired by a woman and is comprised of 75 percent women. When possible, JM has maintained a practice of hiring locally. One hundred percent of JM's senior management, defined as the CEO's top 10 direct reports have been hired locally.

Our success is critically dependent on a constant stream of innovation that stems from diverse ideas and fresh thinking. Therefore we want all employees to enjoy the freedom to achieve remarkable outcomes for themselves and our customers. To help our workforce learn, perform and grow, we provide tools and resources through comprehensive development programs that are designed to help employees realize their potential and personally contribute to our growth and prosperity. In short, we fervently believe in the business benefits of a caring environment where talent can rise. In 2013 alone, JM employees underwent more than 70,000 hours of training in areas including leadership, management, compliance, language, personal development and technology.

In order to foster a respectful and supportive environment for our employees as well as create an authentic and trustworthy experience for our customers and stakeholders, JM is adamant that the entire enterprise demonstrate ethical behavior throughout all global operations. JM's sustainability policy states that we will judge our overall success by a triple bottom line to include social and environmental performance along with traditional financial considerations. Through thoughtful incorporation of sustainability principles, we also will ensure full implementation and proper balance of JM's six fundamental pillars: operational excellence, financial strength, environmental respect, customer satisfaction, employee commitment and integrity.

JM has implemented positive management practices and has a goal to provide a workplace where employees feel they can work with management to find mutual solutions that meet the needs of employees and the business in a fair and constructive manner, regardless of whether they are represented by a third party. Where employees have chosen or are required by law to be represented by a third party, we recognize the third party's right to represent employees and deal with elected representatives in an open, honest, respectful and business-like manner. Sixty-three percent of our global workforce is represented under a collective bargaining agreement.

Our focus on integrity is represented in our fundamental pillars and centers on our commitment to ethical business practices. This means that, among other things, we take steps to ensure we are not at risk for incidents of child labor or forced or compulsory labor. In JM's supplier guidelines, we state that it is our expectation that our suppliers will not employ child labor. JM will not knowingly engage a supplier that directly, or indirectly through a third party, employs illegal child labor in any way. In addition, Johns Manville reviews its facilities to ensure they fully comply with all applicable labor laws.

JM recognizes the 10 principles of the United Nations Global Compact by supporting and respecting the protection of internationally proclaimed human rights, denouncing human rights abuses, eliminating discrimination in employment and occupation, and working against corruption in all forms.

JM's comprehensive Corporate Compliance and Ethics program manages risks across the company, including fraud, antitrust and corruption. As part of this program JM regularly conducts legal, ethical and risk-based assessments and has established detailed procedures and policies regarding gifts, entertainment, conflicts of interests and hiring of third parties who potentially could provide access or influence in helping us secure work.

JM's Internal Audit Group conducts an annual risk assessment that analyzes significant business areas within the company. The risk assessment includes interviews with senior management and covers internal controls and business risks. It also includes targeted questions regarding potential fraud and corruption risks. The results of the assessment are shared with senior management as well as the management of Berkshire Hathaway. The risk assessment covers 100 percent of JM's four business units to determine the areas that the company will plan audits within the year.

As part of our risk management process, we engage with each of our business units to keep them aware of the risks of corruption in jurisdictions where they work. This process includes training and providing easy access to advice and counsel. For those business units that operate in countries or regions known for high corruption risk, we perform specialized training and periodic audits. JM routinely informs business units about the risk of corruption, how to recognize red flags that might be evidence of possible corrupt business activities, and what to do when employees become aware of corruption risk. We provide training on issues raised in the U.S. Foreign Corrupt Practices Act, the United Kingdom's Bribery Act, and other similar anti-corruption mandates from jurisdictions where we do business. 100 percent of management and non-management salaried employees received training focused specifically on corruption, conflicts of interest, anti-bribery, ethics and compliance in general during 2013. JM has implemented anti-corruption training both online and in-person. Annually, all salaried employees recertify on JM's Code of Conduct.

The company also offers employees a toll-free telephone and web-based hotline to report corruption-related allegations or unethical business practices.

## Built to Make a Difference

Johns Manville is a major employer in many of the communities where we operate, and it is our goal to always be an asset in those areas. In addition to great employment opportunities, employee volunteer programs, cash grants and in-kind donations are key ways in which we support our communities.

JM encourages all employees, their family members and friends to get involved in projects that make a difference. The company provides the tools and resources they need to support the organizations they care about most. With that backing, JM employees don't hesitate to jump in when they're needed. From charity race participation and nature trail maintenance to classroom volunteering and more, JM is proud of our employees' willingness to serve.

## Volunteerism and Monetary Contributions

In 2013, 2,263 JM volunteers provided 7,632 hours to 165 community service projects around the globe. The needs came in all shapes and sizes. Some employees helped to support the homeless, the hungry, the sick and disadvantaged, while others helped those suffering from natural disasters or those in need of blood. On any given day JM employees are lending their skills, talents, passions, and muscles to help turn needs into opportunities and community challenges into healthy environments. A few examples are:

- **Cleburne, TX** plant donated shipping materials to college students for a community project at an elementary school to provide a garden experience for its students.
- **Macon, GA** plant raised more than \$1,300 for the American Cancer Society.
- **Willows, CA** plant donated funds for a local educational music program. In addition, the plant raised about 1 million mosquito-eating fish for residential use and stocking in rice fields. For more than 25 years, the plant has worked with local officials to grow and harvest mosquito fish in a pond located on plant property to help abate the West Nile virus in that area of California.
- **Rockdale, IL** plant collected more than 600 pounds of canned and boxed foods for the hungry to support MorningStar Mission.
- **Tucson, AZ** plant employees spent a volunteer day at the Marana Food Bank, part of the Community Food Bank of Southern Arizona.
- **Innisfail, AB** employees and family members took on the Mud Hero Run in nearby Canyon Ski Resort to benefit the Alberta Cancer Foundation. Employees also contributed funds and volunteers to the Innisfail Christmas Bureau.
- **McPherson, KS** employees collected 3,600 pounds of food for the McPherson County Food Bank.



Number of Volunteers	<b>2,263</b>
Number of Volunteer Projects	<b>165</b>
Total Volunteer Hours	<b>7,632</b>
Scholarships <sup>1</sup>	<b>\$21,000</b>
Financial Contributions	<b>\$450,000</b>

- **Milan, OH** plant donated and installed a new roof on the Thomas A. Edison Birthplace Museum.
- **JM Technical Center in Colorado** donated insulation products to Habitat for Humanity. In addition, the local Green Team funded a Little League team with proceeds from the facility's aluminum can recycling program.
- On International Children's Day, **JM's Qingpu plant in China** donated time and funds to help the parents of a 6-year-old girl suffering from leukemia.
- **German employees** donated funds to aid local flood victims.
- **Waterville, OH** complex joined in the 17th Annual "Clean Your Streams Day" community activity.
- **Winder, GA.** plant hourly and salaried employees and union leaders worked together to support the Georgia Adopt-A-Road Program.
- **Trnava, Slovakia** plant supported the Macko-Usko Civic Organization with activities and gifts for orphaned children.

Corporation-wide, JM donated approximately \$450,000 globally in 2013, including \$109,000 in matching funds on Denver-based employee contributions of \$218,000 to Mile High United Way agencies. A \$15,000 donation to the American Red Cross included \$5,000 each to disaster relief efforts in Cleburne, TX and Moore, OK after both communities were hit by devastating tornadoes and \$5,000 to Colorado flood relief. Our European business donated over \$33,000 to organizations in Germany, Slovakia and China.

<sup>1</sup> Provided by the JM Fund: \$1,000 each to 10 new recipients in 2013 and \$1,000 each in second year scholarships to 11 qualified 2012 recipients.

## Awards

- Colorado Environmental Leadership Program, Gold Leader
- 2013 Safe-in-Sound Excellence in Hearing Loss Prevention Awards™
- National Safety Council (NSC) Occupational Excellence Achievement Award – all 31 JM U.S. locations recognized since 2005; 11 for seven years in a row
- Occupational Safety & Health Administration (OSHA) Voluntary Protection Program (VPP) Star status – nine JM U.S. manufacturing facilities

## Certifications

- Customs-Trade Partnership Against Terrorism (C-TPAT)
- Energy Star Partner
- EPA Smartway Certification for JM's carrier fleet in Hazle Township, PA
- ISO 14001 - Environmental Management System - seven facilities certified in 2013.
- ISO 50001 Energy Management System at five manufacturing facilities across Germany
- GREENGUARD Certifications for numerous fiber glass insulation products
- Oeko-Tex Standard 100
- SCS Certified - Recycled Content for fiber glass insulation products
- SCS Certified Indoor Air Quality – Indoor Advantage Gold + Formaldehyde Free
- SCS Certified – U.S. Environmental Protection Agency Region 9 and Alameda County, State of California Specifications for Environmentally Preferable Insulation
- ECOLOGO Certification
- UL Environment Claim Validation – Recycled Content for Fesco product line and Formaldehyde Free for fiber glass insulation products

## Approvals

- UL (Underwriters Laboratories)
- FM Global
- Dade County, FL
- Florida Building Code

## Alliances and Partnerships

- Alliance for a Sustainable Colorado
- The Alliance to Save Energy
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
- Asphalt Roofing Manufacturers Association (ARMA)
- ASTM International
- Best Practices Research Alliance's Energy Efficiency Lab Home by IBACOS
- California Energy Efficiency Industry Council
- California Manufacturers and Technology Association
- Center for Environmental Innovation in Roofing (CEIR)
- Center for the Polyurethanes Industry, American Chemistry Council (CPI)
- Conservation Colorado
- Cool Roof Rating Council (CRRC)
- Construction Specifications Institute (CSI)
- Council of the North American Insulation Manufacturers
- Electricity Consumers Resource Council (ELCON)
- EPDM Roofing Association (ERA)
- European Disposables and Nonwovens Association (EDANA)
- Foam Sheathing Coalition
- Glass Alliance Europe, the European Alliance of Glass Industries

- Glass Manufacturers Industry Council (GMIC)
- GlassFibreEurope, the European Glass Fiber Producers Association
- Heating, Air-conditioning & Refrigeration Distributors International
- INDA – Association of the Nonwovens Fabrics Industry
- Industrial Energy Consumers of America (IECA)
- National Insulation Association
- North American Insulation Manufacturers Association (NAIMA)
- Polyisocyanurate Insulation Manufacturers Association (PIMA)
- Single Ply Roofing Industry (SPRI)
- Sheet Metal and Air Conditioning Contractors' National Association
- U.S. Environmental Protection Agency (EPA) Energy Star Partner
- U.S. Environmental Protection Agency (EPA) SmartWay Transport Partner
- U.S. Green Building Council (USGBC) Gold Member



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\* For more information, visit [JM.com](http://JM.com).



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\* For more information, visit JM.com.

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HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	●	25
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	●	25
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	●	25

## Social: Product Responsibility

		Reported	Page
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	●	5, 20-21
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	●	20

## Social: Society

		Reported	Page
SO2	Percentage and total number of business units analyzed for risks related to corruption.	●	25
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	●	25
SO5	Public policy positions and participation in public policy development and lobbying.	●	9, 17



## Statement GRI Application Level Check

GRI hereby states that **Johns Manville** has presented its report "JM 2013 Sustainability Report" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see [www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf](http://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf)

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 24 April 2014

A handwritten signature in black ink, appearing to read "Ásthildur Hjaltadóttir".

Ásthildur Hjaltadóttir  
Director Services  
Global Reporting Initiative



*The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)*

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 15 April 2014. GRI explicitly excludes the statement being applied to any later changes to such material.

# About This Report

The 2013 publication of *We Build Environments* marks the third year that JM has reported its sustainability endeavors and progress to provide transparent information related to topics of material interest to the company and to our internal and external stakeholders. During the year of publication, JM has identified high-priority stakeholders including but not limited to customers and consumers in both our business-to-business and business-to-consumer segments, product suppliers, governmental and regulatory agencies, our employees, communities and the planet earth. More information on JM's approach to stakeholder engagement and methods employed to foster dialogue and feedback may be found on page 9 of this report. JM's sustainability report has been made available on the company's website at [www.jm.com/en/sustainability/](http://www.jm.com/en/sustainability/). JM's previous sustainability report was published in April of 2013.

JM remains diligent in identifying topics that are material to key business constituencies and significant to the values and culture of the organization when defining the content of the *We Build Environments* report. In order to ensure that insights from all areas of the business are represented in the report, JM has assembled a cross-functional team focused on determining and prioritizing stakeholders, understanding material content for inclusion in the report, and providing economic, environmental and social data aligning to Global Reporting Initiative (GRI) guidelines and performance indicators.

The content of this publication reflects information and metrics gathered during the reporting period of January 1 through December 31, 2013. Where possible, we have included additional company and product information in order to provide a deeper context regarding our business approach and long-standing sustainability efforts. JM publishes a sustainability report on an annual basis, and pursues opportunities for better communication of sustainability efforts in a transparent and meaningful way.

In order to ensure comprehensive report content as well as a high level of transparency for our stakeholders, JM has created this report in adherence to the Global Reporting Initiative (GRI) sustainability reporting guidelines. GRI is a widely recognized and applied reporting standard for companies such as JM that are focused on measuring and managing the economic, environmental, social and governance implications of their business. JM does not currently seek external assurance services for the report, nor is there a formalized policy in place requiring such action to take place prior to publication. External assurance options are evaluated and considered on a yearly basis and may be an option in the future. *We Build Environments* fully complies with the GRI B Application Level and has undergone an Application Level-Check by GRI to confirm the thoroughness of this report's content index. For a full list of the GRI standard disclosures and performance indicators reported on by JM in *We Build Environments*, please refer to the GRI Index found on pages 28 and 29. To learn more about the GRI, visit [www.globalreporting.org](http://www.globalreporting.org).

# Looking Ahead

*We Build Environments* communicates JM's corporate commitment to sustainability and conducting business in a responsible and ethical way that respects the planet, our stakeholders and the economic contributions of our business. JM is guided by four core values that shape the way we do business today and into the future.

## People - Our Differentiator

JM engages its employees, customers and stakeholders across the globe with mutual trust, integrity, respect and a personal interest in building the future together.

## Passion - Our Motivation

The company is committed to providing employees and customers with high-quality experiences and innovative solutions.

## Performance - Our Engine

JM accepts ownership and accountability for achieving outstanding results by doing things the right way.

## Protection - Our Responsibility

The company cares about the health and safety of employees, customers and the communities it serves and keeps its impact on the environment in mind at all times.

## Closing Remarks

In 2012, JM leadership updated the sustainability goals to guide future sustainability activities described in publications such as *We Build Environments*. These goals are referenced on page 6 of this 2013 report. Many of JM's current goals have a scheduled end date of 2014 when overall performance toward achievement of these goals will be evaluated. Over the duration of time in which progress toward our existing goals has been made, many lessons have been learned that lead us to believe that the next generation of goals will correlate even more closely to issues specific to JM's operations and our unique community of stakeholders.

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