

Superior Environmental, Health, and Safety Performance: What Is It?

A peer survey of what it is and which corporations have it

By Richard MacLean

Despite widespread interest in improving corporate environmental, health, and safety performance, a consistent definition of the term “superior EHS performance” has proven surprisingly elusive. As this article discusses, a recent survey of EHS professionals reveals little agreement on the meaning of the term.

Ask any business executive or stock analyst “What are the best performing corporations, and why?” and they will immediately respond with the names of companies that have superior results, based on a handful of financial parameters. Price-to-earnings ratio, return on equity, total shareholder return, beta, and so on are universal corporate benchmarks.

Indeed, definitive, comparative profiles of corporations can be summarized on a single page -- in, for instance, reports by Morningstar, ValueLine, Thompson, and Hoovers. Lists of the “Top 100” and “category kings” appear in publications such as *Fortune* and the *Wall Street Journal* with only a few columns to differentiate “winners and losers.”

Environmental, health, and safety (EHS) performance is an entirely different matter, however. Just what is superior environmental, health, and safety performance?

About this Article

This article explores the published literature and regulatory definitions of superior EHS performance, and summarizes the opinions offered in survey responses from 60 senior environmental, health, and safety professionals.

As this article explains, the survey found no consistent definition of superior environmental, health, and safety performance. Fifty-two companies were identified as “having it,” but the reasons for their selection differed greatly. The published literature and regulatory and legislative definitions do little to add clarity.

Clarity on this issue could significantly advance progress towards sustainable development. This article offers suggestions on how it could be achieved.

Survey Methodology

An e-mail was sent to 1,030 EHS professionals requesting participation in a survey of EHS performance characteristics. The database of contacts was derived from a list assembled by the author over the past five years. It consists primarily of senior-level EHS professionals in industry (60%), consulting (10%), independent practice/retirement (10%), academia (10%), government (5%) and nongovernmental organizations (NGOs) (5%). (Percentages are approximate).

Three open-ended survey questions were asked. Two were used as the basis of this article:¹

1. What is your definition of “superior EHS performance”?
2. When you think of the companies with the “superior EHS performance” you defined above, what companies come to mind and why?

There were two methods used to gather this information: The first half of the contact list (i.e., approximately 515 individuals) were asked to reply directly to the e-mail and insert their responses next to the questions.

The second half were asked to click on a link to a web site that contained fields for the survey questions, with additional fields to capture demographics (organization type and their role within their organization). Space was provided on the form for the respondents to list up to four companies, along with the reasons for each company named.

There were 61 responses to the survey, of which 60 were usable, giving an overall return rate of approximately 6%. Twenty-six people (44%) responded online; 34 (56%) responded using email.

Return rates for surveys vary tremendously by the type of instrument used and the

perceived direct and immediate benefit to the individuals being surveyed. For example, a literature review of web and e-mail surveys found response rates ranging from six to 68 percent for e-mail surveys.²

Response rates for this survey were at the low end of this range because (1) we were asking for open-ended text responses instead of the more common “check the box” responses; (2) the only direct benefit offered was a copy of the research results; and (3) e-mail is losing its effectiveness because of the exponential increase in “spam.”³

The demographic results indicated that nearly all of the responses were from individuals holding manager-level positions. Four listed themselves as holding positions in either technical services or engineering.

The responses received were mostly from individuals working in manufacturing (approximately 46%), with the next largest group being consultants (approximately 26%), followed by respondents in services, NGOs, government, and academia (each approximately 7%). This roughly approximates the demographics of the contact list.

Survey Results

Definitions of Superior EHS Performance

Fifty-eight definitions of “superior EHS performance” were received from survey respondents. Two of the shortest were “outstanding performance globally against recognized lagging indicators” and “compliance and beyond; ingrained sustainability ethic.”

The longest was 301 words, with a typical definition containing approximately 30 words. The vast majority of the definitions were general descriptors of corporate behavior or attributes, rather than specific performance metrics.

Only two provided a measurable threshold required to attain superior EHS performance: “Top quartile performance in credible benchmarks” and “less than one-half of the injury/illness rates and environmental incidents for the respective industry segment.”

No two definitions precisely (or even approximately) matched. There were, however, a number of common themes, as illustrated in **Exhibit 1**. Based on the most frequently cited attributes among these themes, a superior-performing company would:

Aggressively strive for continuous improvement and be committed to meeting proactive EHS goals through an EHS culture embedded into the core business processes. It would measure its results and openly share them with internal and external stakeholders.

Exhibit 1 Common Attributes of Companies with Superior EHS Performance
<ul style="list-style-type: none"> • Proactive • Committed • Transparent/open • Meeting internal and external goals • EHS issues integrated/embedded into core competencies and ethics • Continuous improvement • Aggressive/vigorous • Consistent • Accountable • Leadership/progressive/vision of the future • Responsible corporate citizen • Beyond compliance and contractual agreements with labor or the community • Meeting both spirit and intent of the law • Reduced life-cycle impacts/supply chain • Measurable results • Minimize impacts/risk • Performance/metrics better than peers • Fully implemented environmental management system • Prevention-based philosophy

Top Companies and Reasons Why They Were Named

Fifty-two companies were named by respondents as having superior EHS performance. The average company received 2.3 “votes,” with a range of one to 14. The reasons cited for including a company closely paralleled the definitions that survey participants provided for superior EHS performance. In other words, the participants were consistent and did not vary from their stated definition of superior EHS performance.

Not surprisingly, the vast majority of companies were selected for their general attributes, and not because they met some definitive performance threshold. There were a few exceptions, however.

One respondent mentioned EHS value contribution (“Baxter International’s \$56 million in income, savings, and cost avoidance”). Another cited zero discharge (Anderson Lithograph). Yet another mentioned low Occupational Safety and Health Administration (OSHA) rates relative to the industry sector (Intel).

The most frequently named companies and the reasons given for their listing are provided in **Exhibit 2**.

Companies with environmentally friendly reputations -- such as Ben & Jerry’s, Interface, Patagonia, and Starbucks -- were mentioned, but they did not make the top cut as most frequently listed companies. Several companies that have poor reputations with the general public or the regulatory agencies were also mentioned, including Exxon Mobil and General Electric.

Exhibit 2 Superior EHS-Performing Companies		
COMPANY	# of CITATIONS	REASON
DuPont	14	Safety performance; management commitment; openness/disclosure
Baxter International	8	Metrics/value measurement system; Baldrige model for operational excellence; management commitment
Intel	8	Supply chain/Design for the Environment; Baldrige model for operational excellence; low OSHA rates; management accountability
British Petroleum	5	Vision; commitment
Bristol-Myers Squibb	4	Transparency in reporting; global metrics
Dow	4	Emphasis on continuous improvement; program integration
Johnson & Johnson	4	Goal setting; strong people values
Procter & Gamble	4	Management systems; reporting
Shell	4	Global metrics and goals; long-term vision

Analysis and Discussion

There is a critical distinction between how superior business performance is defined by analysts and how regulatory agencies, NGOs, and EHS professionals define superior EHS performance.

Business analysts look towards specific, quantifiable thresholds that must be achieved in order to rank a company's performance as being superior. For example, Jim Collins, in *Good to Great*, defines the breakthrough from mediocre to superior performance as "fifteen-year cumulative stock returns at or below the general stock market, punctuated by a transition point, with cumulating returns at least three times the market over the next fifteen years."⁴

Similarly, Nitin Nohria, in his five-year study on "what really works," uses total shareholder return over a ten-year period to pick "winners, climbers, tumblers and losers."⁵

The definitions offered by EHS professionals, in contrast, are essentially broad value statements. A quick glance at Exhibit 1 reinforces this point. Each of the 19 common attributes listed there could be measured and quantified by protocols (some more arduous than others), but in actual practice they remain ethereal concepts rather than hard numbers benchmarked among companies.

Environmental Metrics

Environmental parameters associated with compliance (e.g., number of violations or total fines) are the most readily available and easiest to benchmark. But compliance with environmental rules is a threshold parameter; it should no more be a metric identifying superior EHS performance than compliance with Securities and Exchange Commission (SEC) regulations would be a definitive element of superior business performance.

Environmental emissions (as reflected by, e.g., greenhouse gas emissions and toxic release inventory reports) might be used to define superior performance. Indeed, some companies, such as British Petroleum and DuPont, point to their commitment to reduce emissions as a core business strategy for demonstrating social responsibility.

Using these parameters as universal metrics is, however, problematic. First, although corporate environmental reporting is increasing, most corporations do not report (nor are they required to report) metrics that are not mandated by regulations.

Second, standardized protocols typically do not exist for emissions being measured across global operations.

Third, benchmarking can only be done within particular sectors, since emissions are specific to the processes employed in each sector.

Finally, there are no defining thresholds for superior performance.

Safety Metrics

Safety performance is the easiest to benchmark since there are universal metrics for lost time, illness, and recordable accidents. Yet only one survey participant offered a definitive cut point for superior safety performance (“less than one-half of the injury/illness rates” in the sector being evaluated). OSHA inspection or penalty/fine statistics do not translate well across global corporations.

Even the National Safety Council does not establish a specific cut point for achieving the prestigious Green Cross for Safety medal. That organization uses a general statement to define the criteria for winning the award -- specifically, “superior record in advancing safety and health practices.”

Occupational Health Metrics

Benchmarking occupational health performance is more difficult than either safety or environmental performance. Very few companies disclose specific occupational exposure information. Instead, occupational illness data are rolled into safety performance metrics.

Social Responsibility Metrics

Benchmarking for “social responsibility” is even more elusive, since few companies can even agree on the definition of a socially responsible corporation, let alone measure it.

Problems with Choosing Metrics

Without a guiding set of key performance metrics to define superior environmental, health, and safety performance, companies choose from a vast (and bewildering) array of commonly reported metrics.

The Global Reporting Initiative (GRI) 2002 Sustainability Reporting Guidelines list scores of potential “core indicators” and “additional indicators.” There are dozens of additional reporting guidelines by various organizations, as well as hundreds of journal articles and books on metrics, performance measurement, and disclosure.

The primary set of metrics (together with their accompanying thresholds characterizing superior EHS performance) remains elusive.

Lack of Regulatory Definitions

Regulatory agencies and legislators have shed little light on the issue. Debate over the definition of “superior environmental performance” sidelined 3M’s willingness to participate in the U.S. Environmental Protection Agency (EPA) Project XL program in 1996.⁶ Similarly, the Washington State Environmental Excellence Program stalled, partly due to arguments over the definition of superior environmental performance.⁷

More recently, Wisconsin legislators defined superior environmental performance as being present when “an entity’s environmental performance results in measurable or discernible improvement to the quality of the air, water, land, or natural resources, or in the protection of the environment, beyond that achieved under environmental laws.” Nine methods are listed to demonstrate superior performance.⁸

At the federal level, EPA has yet to clearly define superior environmental performance. Christine Todd Whitman, former EPA administrator, stated in the cover letter to the National Environmental Performance Track Program Guide, “Superior environmental performance is valuable not only to a company’s good name and reputation, but also to the nation’s success in making our air cleaner, our water purer, and our land better protected for future generations.”

The text provides no definition of superior environmental performance, however. Instead, it specifies systems (such as environmental management systems), commitments (to, e.g., continuous improvement), and thresholds (for example, sustained compliance) as requirements for admission to the program.

When asked why EPA has not provided an exacting definition of superior environmental performance, Daniel Fiorino, director of the National Environmental Performance Track program, responded:

We specifically avoided any claim to defining or measuring “superior performance.” Instead, we worked for the best possible commitments and concentrated on improving our ability to measure results. A primary goal of the Performance Track program is to advance the state of the art on performance measurement. Although it does not require a specified level of performance, members do commit to achieving measurable results and to reporting annually on what they have achieved.⁹

Does This Really Matter?

At this point, the reader may be wondering if this issue is just much to do about semantics. There are, after all, many commonly used terms, such as “environmental excellence,” for which there is no consensus definition.¹⁰

In the business world, of course, terms such as “world class,” “top performer,” “leader,” and so on are freely used. But these terms can be anchored to very specific financial or production parameters that can be precisely ranked by a few well-defined metrics. Executives, shareholders, and stock analysts pay close attention to these rankings.

Contrast this attention to EHS performance rankings. The overused axiom “what gets measured, gets managed” might be restated for EHS as “if everything gets measured, nothing gets managed” -- or at least nothing captures executive attention.

This is the heart of the issue. If EHS professionals do not share a common vision amongst themselves, and do not crisply state what constitutes superior EHS performance, how can business executives be expected to know and -- more importantly -- even care?

When there is specificity and clarity, remarkable things can happen. For example, Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 had a profound impact because, by creating the Toxic Release Inventory (TRI), it quantified emissions (i.e., wasted resources) that had previously been “invisible” to top executives.

The TRI also provided a mechanism for the public, the media, and environmental activists to compare companies’ emissions. CEOs could clearly see where they ranked - and this caused them to take action. Reductions in emissions occurred (and continue to occur) even though there were no specific reduction targets set by EPA.

EHS “value statements” may make people feel warm and fuzzy, but they do not necessarily inspire definitive action or shift corporate resources. One wonders if the TRI would have had any impact if, instead of listing specific substances, Section 313 had merely stated the benefits of disclosing toxic emissions and required increased reporting. Technical experts and lawyers might be still arguing over the definition of a toxic emission -- as they continue to argue over the definition of “solid waste.”

Similarly, having the latest management processes (such as environmental management systems) in place may inspire confidence, but they do not guarantee results. Individuals do not buy stock in a company just because it has implemented ISO 9000 or Six Sigma.

Closing Remarks

Business executives will not understand (or even care about) superior environmental, health, and safety performance until EHS professionals agree amongst themselves about what it is.

Furthermore, executive attention cannot be captured if EHS performance metrics number in the hundreds, without clear differentiation between the critical and the mundane. Executives require some (small) set of key performance metrics that they can use to benchmark across their industry sector.

While some metrics, such as lost time and injury frequency, can be universally measured across all sectors, they have added meaning (and prompt more action) when they are placed in context within common sectors. The financial sector does not share the same risks as the mining industry.

Methodologies exist to identify the key metrics for every business sector, and to establish protocols for measuring and reporting these performance measurements. The impact of doing so could be significant.

Imagine, for example, corporations consistently disclosing five to ten metrics that define critical performance indicators for their industry sector, as determined by key external stakeholders. Imagine specific thresholds for each of these metrics constituting superior performance as defined by regulatory agencies and NGOs. Now imagine the impact that this approach would have in advancing EHS performance.

The last element -- impact -- is the reason why such a future scenario would be unlikely for EHS, even though it is commonplace for financial performance. A firestorm of political and technical wrangling over applicability, technical nuances of measurement, appropriateness, and fairness would erupt: Who are the stakeholders? Who will determine the performance thresholds? Will these become regulatory mandates? And so on. There would be “winners and losers” if companies were directly compared -- just as there are today on financial and production measurements.

So how will the next generation of progress be initiated?

Command and control, “end-of-pipe” regulations have plateaued because the key issues have migrated from controlling emissions at the fence line to efficiency and resource consumption concerns throughout the supply chain (a/k/a, “sustainable development”). Sustainable development progresses forward at glacial speed -- or are most glaciers receding? -- in part because executives and the public cannot get clarity over what the key issues (i.e., metrics) are.

In some respects, the survey discussed here is a reflection of this problem. Yet these are the very people expected to be major contributors to the solution.

This rather bleak picture could change with amazing speed if there were vision and leadership. For example, an industry trade association could set the tone and -- in precise, quantifiable terms -- define superior performance for its entire sector. The same applies to EHS professional societies.

An industry leader, such as those listed in Exhibit 2, could also define and set the standard for its sector. These companies report now, but a broader vision of “superior performance” is missing.

Alternatively, EPA could press forward as it did with the TRI in 1986. Similarly, the SEC could specify EHS parameters to be included in annual financial reports. The 2001 Nouvelles Régulations Économiques (or NRE) did as much in France.

Finally, a single congressional representative could bring the message forward.

It is our challenge as EHS professionals to make the message clearer and simpler -- and not add to the muddled confusion over just what constitutes superior environmental, health, and safety performance.

Notes

¹ The one additional question was, "When you think of companies that have the best EHS organization and staffing, what companies come to mind and why?" The responses to this question are being used in another research program.

² Schonlau, M., Fricker, R.D., Jr., & Elliott, M.N. (2002, March). Conducting research surveys via e-mail and the web. In *Literature Review of Web and E-Mail Surveys* (chapter 3, page 20), Santa Monica: RAND Corporation.

³ U.S. Federal Trade Commission (2003, May 21). No "Silver Bullet" to Limit Spam, FTC Tells Congress. Press Release.

⁴ Collins, J. (2001). *Good to Great -- Why Some Companies Make the Leap . . . and Others Don't*, p. 6, New York: HarperCollins.

⁵ Nohria, N., Joyce, W., & Robertson, B. (2003, July). What really works? *Harvard Business Review*, 81(7), 42-52, at 43.

⁶ See various letters of correspondence regarding 3M and the agencies at <http://www.epa.gov/projectxl/mpca/page4.htm> (accessed July 24, 2003).

⁷ http://envstudies.brown.edu/Thesis/2001/beavers/Background/Background2/ELP_Hist.htm (accessed July 24, 2003).

⁸ Wisconsin Senate Bill 61. Introduced by Senators Kedzie, Welch, et al., March 5, 2003, at p. 7.

⁹ E-mail communication to the author dated July 29, 2003.

¹⁰ MacLean, R. (2002, June). Eco-Friendly and fuzzy -- Eco-friendly terms sound great in company statements to the public, but their use can create unintended consequences. *Environmental Protection*, 13(6), 22-23.

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