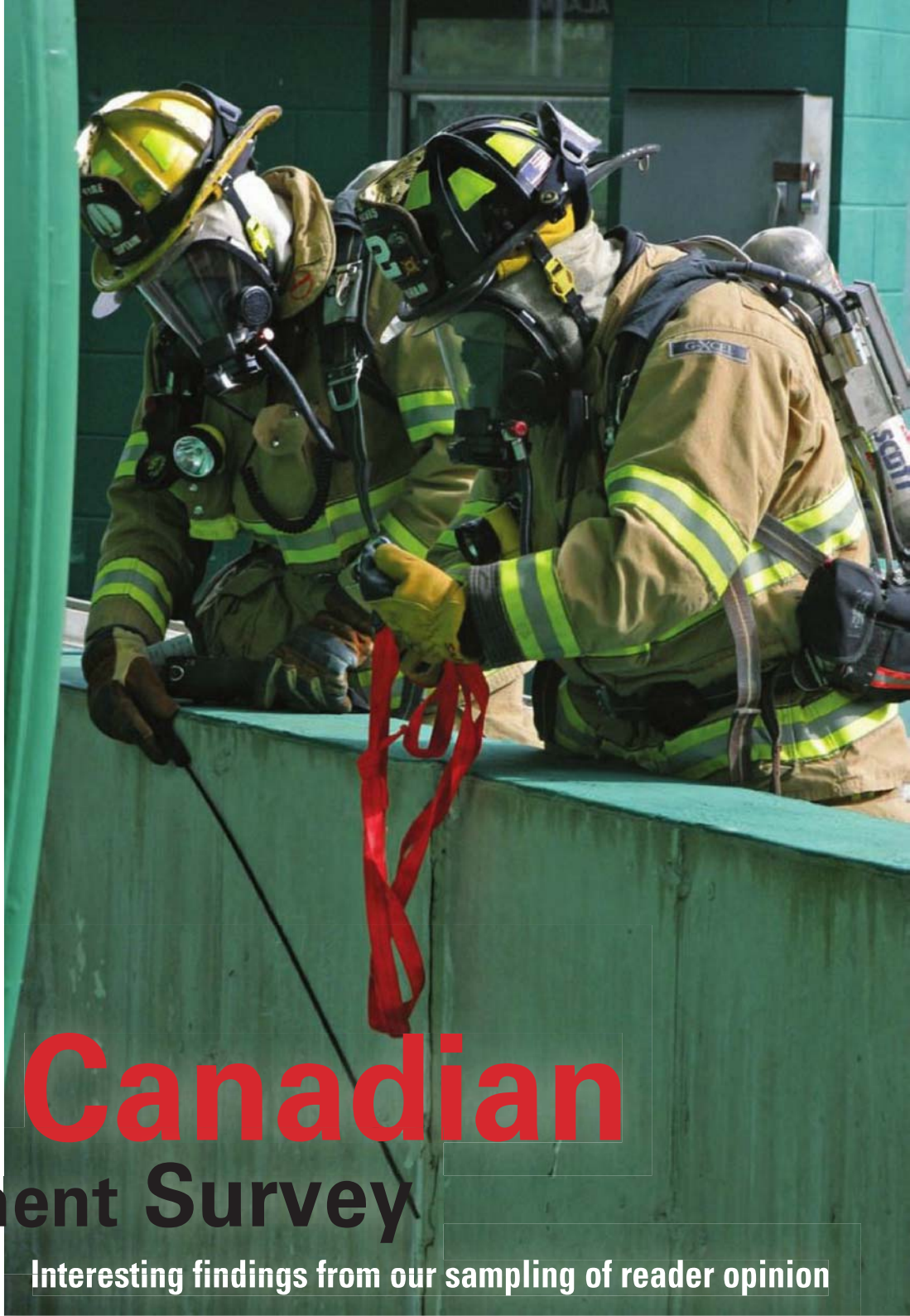




by Guy Crittenden

"Almost a quarter of organizations (21.5%) experienced a spill in the last 12 months; 78.5% did not. Roughly half (52.1%) of reader businesses or organizations have an environmental management system (EMS) in place; 47.9% do not."



The Great Canadian Environment Survey

Interesting findings from our sampling of reader opinion

When I inquired mid-February about the status of our recent online industry and readership survey, I was very happy when told that almost 500 readers had filled in the questionnaire.

That's a huge response by survey standards and yields statistically significant results. Heck, I've seen consultants like KPMG dine out on survey results from much tinier numbers of respondents.

So, without further build-up, here's what you, our readers, said in answer to our questions about a range of topics concerning environmental protection and also our magazine.

REMEDIATION

We asked readers if their organizations have a property with contamination that currently requires (or is undergoing) soil or groundwater remediation. Answer? Yes 14.9%, No 85.1%. This was about what we

might have expected. Asked if they have a property that may require remediation in the future, slightly more (17.7%) said yes, while 82.3% said no.

It was interesting to learn from those who answered "yes" what technologies that are using (or may use) to clean up their contaminated sites. One hundred per cent of respondents who answered "yes" listed at least one remediation technology or strategy. It was an open-ended question so the

answers weren't uniform, but most listed (not surprisingly) excavation with backhoe or variations of "dig and dump." This was followed closely by pump and treat. Other treatments listed included treatment in-place using techniques like in-situ bioremediation, interception wells, chemical oxidation, vapor barriers, aeration, etc. Some referred to soil washing.

People who answered the second level (82.7%) and third level (57.3%) again referred to simple excavation and treatment offsite, but also listed more technical onsite treatments including multiphase vacuum extraction, in situ bioleaching, natural attenuation, and thermal treatment (among others). Phrases like reverse osmosis, phytoremediation, and chemical injection were included.

It's hard to say whether the responses suggest we haven't progress in contaminant destruction and soil recycling, relying too much on straight landfill. In that regard the next question was useful, which asked readers to rank the reasons they're not taking action at this time according to a list of factors, ranked from not relevant to strongly relevant.

Between two-thirds and three-quarters of respondents felt that liability/risk was irrelevant, along with lack of cost-effective technology, no regulatory requirement or too expensive. Of those who thought these factors *were* relevant, the strongest responses were lack of cost-effective

"So cost is a big factor, along with lack of cost-effective technology and regulatory requirements."

technology (relevant: 14.8%), no regulatory requirement (relevant 13.4%) and too expensive (relevant 9.9% and strongly relevant 17%). Most people who checked "other" simply don't own or control a contaminated site. So cost is a big factor, along with lack of cost-effective technology and regulatory requirements.

HAZMAT & EMERGENCY RESPONSE

We asked readers if their organization handles hazardous materials (flammables, chemicals, regulated substances, etc.) and were not surprised to learn that 67.2% do. Eighty per cent have a written emergency response plan in place, and 72.6% conduct regular practice of the plan (e.g., facility evacuation, fire drills).

We were interested in whether com-

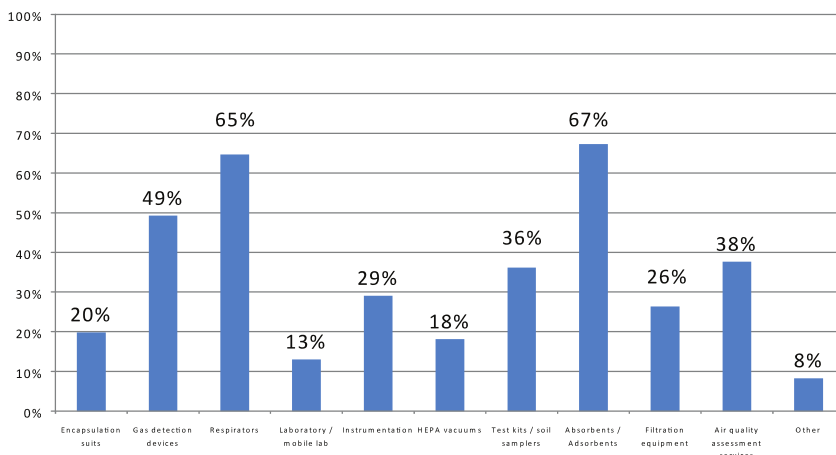
panies and organizations have the internal capability (personnel, equipment) to respond to an emergency such as an in-plant spill, fire, or chemical release. Just over two-thirds (68.3%) do, and 31.7% do not. It made sense then that when we asked readers if their organization "contracts out emergency response services to an external contractor," the numbers broke out along similar lines: 32.5% answered "yes" and 67.5% said "no."

We were curious about whether readers' organizations regularly arrange for emergency preparedness training of employees. Two-thirds (66.8%) do, and one third (33.2%) do not. It was interesting to learn that of those who answered "yes" 84% conduct training onsite, 34.7% arrange for offsite training, and 38.7% of training is conducted via computer or internet. (Of course, the percentages total more than 100% because many companies do combinations of all three.)

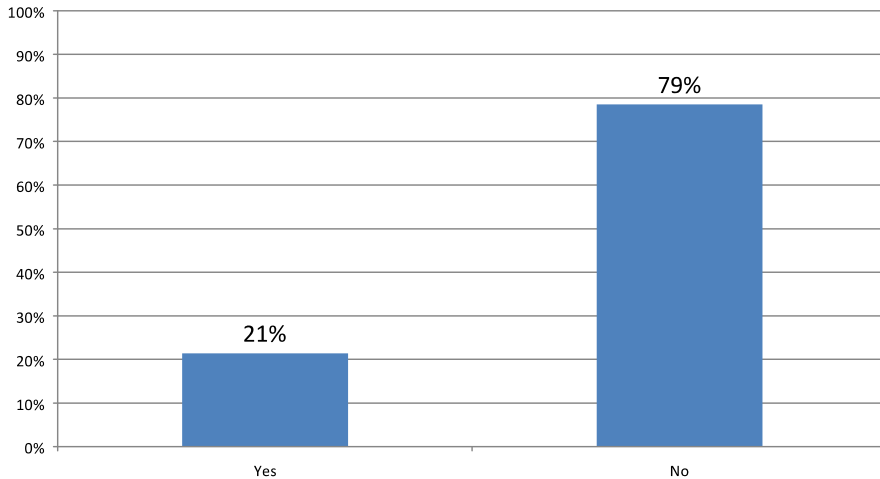
We asked readers if their organization has a person dedicated to environmental compliance. 56.1% answered yes, 40.9% said no. Of those who answered "yes," 81.5% said this was a fulltime position and 23.1% said it was part-time. (This likely relates to the size of the organization.) Fulltime and part-time job titles carried many different names, and included environmental coordinator, regional HSE manager, health & safety officer, senior environmental auditor, compliance manager, environmental specialist, waste management technician, etc.

Our readers are apparently big purchasers of equipment and materials related to emergency preparedness and personal protection. We asked them what equipment

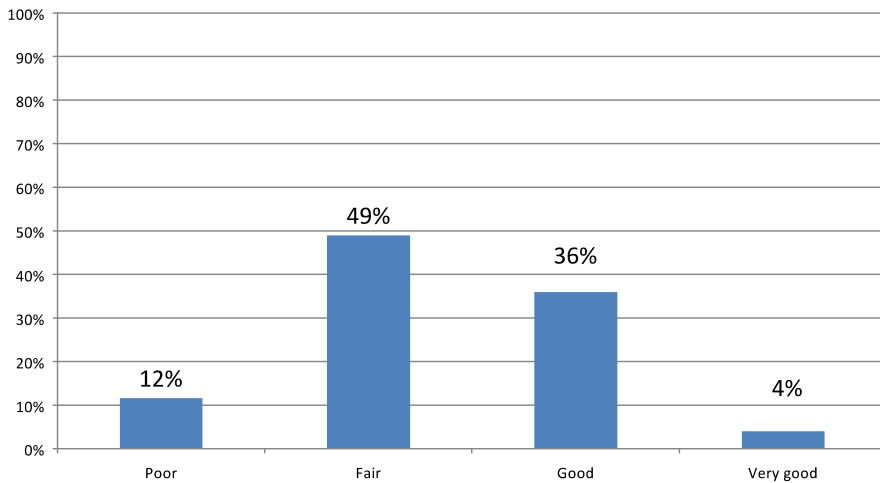
12. Which of the following kinds of emergency response or personal protective equipment is your operation likely to buy in the next 12 months? (Check all the apply.)



16. b) Has your organization experienced a spill in the last 12 months?



18. How do you rate the Canadian Council for Ministers of the Environment (CCME) in terms of its performance addressing environmental protection issues (e.g., harmonization of standards)?



their organization is likely to buy in the next 12 months and the breakdown was (in descending order): absorbents/adsorbents (67.4%), respirators (64.7%), gas detection devices (49.3%), air quality assessment services (37.7%), test kits/soil samplers (36.2%), instrumentation (29.1%), filtration equipment (26.4%), encapsulation suits (19.9%), HEPA vacuums (18.1%), laboratory/mobile lab (13.1%).

These are not surprising answers for readers of a magazine on HazMat management. The higher percentages related logically to items that need to be replaced frequently (like absorbents), whereas things

like encapsulation suits can last for many years. (While you're thinking of it, make a note to check your respirators soon!)

We asked readers if their organizations have taken special steps to help prevent a terrorist attack against its facilities (e.g., industrial, chemical or energy generation equipment, etc.)? 27% answered "yes" and 73% said "no."

About half of you (51.3 per cent) have specific plans in place to reduce greenhouse gas emissions; 48.7% do not. Almost a quarter of readers' organizations (21.7%) are ISO 14000 certified, or are in the process of being certified, which is a fairly

strong number given the various sizes of reader companies. 78.3% are not ISO 14000 certified, nor plan to be.

We asked readers if their company/organization is exposed to off-site spill liability through logistics equipment or transportation of dangerous goods? The answers were "yes" 37.4% and "no" 62.6%.

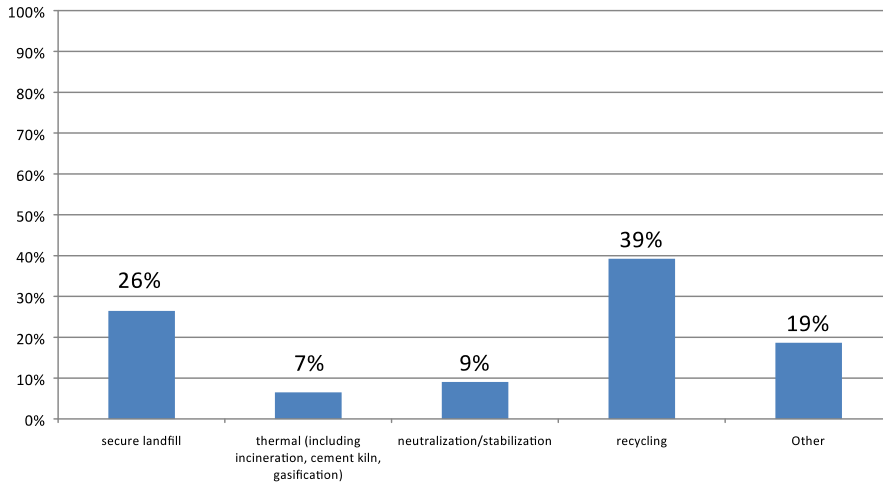
Almost a quarter of organizations (21.5%) experienced a spill in the last 12 months; 78.5% did not. Roughly half (52.1%) of reader businesses or organizations have an environmental management system (EMS) in place; 47.9% do not.

REGULATION AND COMPLIANCE

We asked readers to rate the Canadian Council for Ministers of the Environment (CCME) in terms of its performance addressing environmental protection issues (e.g., harmonization of standards). Readers answered as follows: Poor (11.7%), fair (49.1%), good (35.3%) and very good (3.9%). So the CCME is doing sort of "okay" in readers' minds. The federal government fared a bit more poorly. Readers ranked the current federal government's performance on environmental issues as poor (26.5%), fair (48.8%), good (22.7%) and very good (2.0%). Whether or not this would trouble Prime Minister Stephen Harper remains unknown.

We wanted to ask readers an open-ended question and invite them to list some of the main challenges they face improving their organizations environmental performance. It's impossible to rank the answers, but just listing some of the highlights provides a window into what's top of mind for Canadian companies and institutions these days. Topics in their answers included: vehicle use and GHG, water use reduction, spill prevention, energy efficiency gains, better construction practices, reduced carbon footprint, upgrading current HazMat equipment, *Toxics Reduction Act*, increased recycling, more funds for remediation, Pb reduction, storm water plans, reducing office waste, install heat exchange equipment, contain leaking hoses promptly, SO2 and CO reduction, no-idling policy, reduced air travel, new oil separation equipment, capture landfill gas, report minor spills, increased staff training, replace fossil fuels with biodiesel, develop EMS plan, retain environmental consultants, get ISO certified, etc. (I rather enjoyed this more specific item: "placing test articles in the proper buckets: 100% of the time!")

22. My company or organization uses the following technologies or systems to treat and dispose of its wastes:



It was interesting to learn that 35.1% of readers' organizations primarily manage their hazardous and industrial wastes onsite; 64.9% manage them offsite. Even more interesting was learning about the

technologies or systems they use to treat and dispose of wastes. Recycling (we were pleased to learn) ranks highest at 39.3%, followed by secure landfill (26.5%), neutralization/stabilization (9%), and thermal

treatment (6.5%). Among "other" techniques (18.7%) people almost entirely listed "all of the above" or "contracted out" (including disposal via municipal facilities).

When we asked readers what are their biggest environmental challenges at work, they answered thus: staying on top of new legislation and industry news (50.3%), managing environmental, health and safety issues (44.8%), improving efficiency and developing new business (34.7%), keeping the organization in compliance (31.3%), site remediation and redevelopment (16.0%), understanding and adopting new clean technologies (15.0%), and managing industrial security (4.3%). In the "other" category, answers included "identifying training opportunities and related webinars, workshops, conferences and events," and "staying current with response techniques and new equipment."

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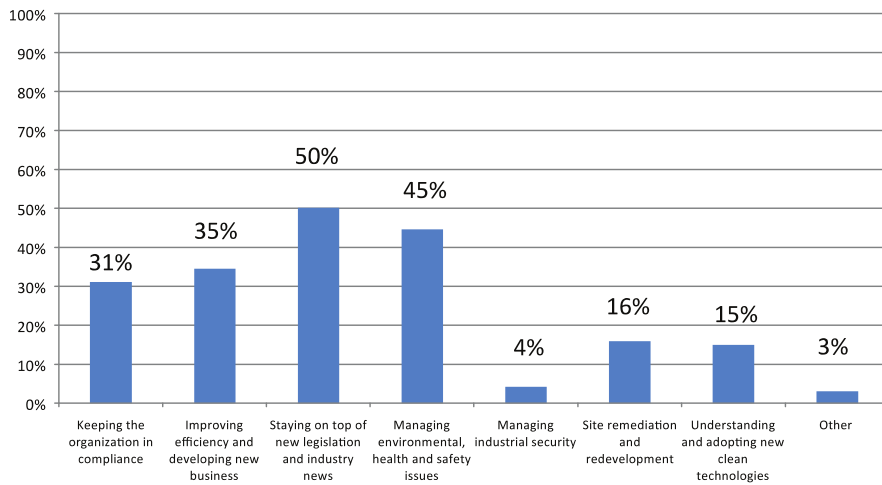
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32. What are the biggest environmental challenges in your work?



OUR READERS AND THEIR RELATIONSHIP WITH OUR MAGAZINE

The final section of our survey delved into who our readers are and what they like or don't like about *HazMat Management* magazine, and how they use it in their jobs.

The breakdown of survey respondents and job descriptions was somewhat similar to our overall magazine circulation. Top jobs were corporate manager (16.4%), environmental consultant (14.7%), technician/scientist (11.4%), health & safety manager (10.3%) and "other" (24.2%). Other included such things as fire chief, instructor or trainer, emergency response technician, laboratory staff, office manager, inspector, town clerk, plant or operations manager, engineer, environmental assessor, lawyer, chemist, and drilling superintendent (among others).

About three-quarters (76.7%) have a subscription; 12.2% get theirs

To solve the toughest problems you have to look at the world differently.

By focusing on recycling and recovery, we push beyond conventional thinking and find cost-effective solutions to transform industrial residues back into valuable products. For example, through our coast to coast facility network last year we recovered 1.9 million barrels of oil, creating millions of dollars in value for our customers. **There are better ways to think about waste. NEWALTA**

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passed along by a colleague and 11.1% receive their magazine by other means (e.g., online or library). In terms of how they learned about our magazine, 39.4% simply started receiving it in the mail; others broke down as: from an Internet search (20.6%), referred by a colleague (18.6%), from a tradeshow (15.0%), other (6.4%). We enjoy a tremendous pass-along readership. When asked how many people read the same copy of the magazine, readers answered: only me (38.9%), two to three people (43.1%), more than three people (18.1%). (Advertisers make note!)

We asked readers how often they visit the website (www.hazmatmag.com) and were told: daily (1.4%), weekly (19.4%), monthly (57.8%), never (21.4%). This tells us that while our online readership is growing, people still want the print publication. Our weekly email newsletter is popular. Our audience reads it often (40.3%), sometimes (50.6%) and never (9.2%).

We braced ourselves to be told we're off-base in our coverage of Canada's environmental services market, but were pleasantly surprised to learn that most readers think we're doing a good job. According to you, *HazMat Management* magazine: keeps me up-to-date on the latest environmental protection news (76.9%), provides information not easy to find elsewhere (37.9%), is a "must read" publication (14.8%), helps me perform my job better (26.5%), I copy and circulate certain articles (35.7%), other (2.5%) (e.g., is the best source of up-to-date HazMat information).

Hey, thanks!

We asked readers if they're satisfied with the current selection of conferences, trade shows and workshops provided in the environmental industry? Readers answered: "yes" (82.4%) and "no" (17.6%). Specifically, readers indicated that in the world of conferences, trade shows, workshops, or webinars, they'd like more focus on the following areas: hazardous materials/waste issues (44.5%), brownfields redevelopment (17.2%), emergency preparedness/response (34.6%), environmental legislation (45.4%), environmental technologies/equipment (43.1%), other

(4.8%). Other ideas included mineral industry issues, liquid waste storage, farm waste and air permitting.

Sixty-two per cent of readers would you like more webinar or online training opportunities.

We asked readers to rate the usefulness of our leading columns and regular article features. All our regular features and columnists scored between 44% and 61.6% in the "somewhat useful" category and between 20.8% and 54% in the "useful" category. The percentage of readers who found any regular articles or columns "not useful" or "do not read" was mostly in the single digits. The editor's page editorial had the highest "somewhat useful" score of 61.6% and the cover story features scored highest as "useful" at 54%. (Only 1.2% said they never read the cover story or don't find it useful.)

When we asked readers what subjects would you like to know more about, it went like this:

• health and safety protocols	50.3%
• risk assessment / management systems	48.8%
• hazardous waste treatment technologies	36.5%
• contaminated site cleanup strategies	36.3%
• clean environmental technologies	35.4%
• renewable energy systems	33.9%
• corporate social responsibility issues	27.2%
• climate change issues	20.8%
• emission trading opportunities	9.9%

Other included innovations, applied research, emerging/sustainable/green technologies/approaches/best practices.

The answers were very interesting and mostly positive to our question "What would you suggest we do to improve content, service or delivery?" Answers included, "Nothing! Its great!" "I feel that the publication is often too 'left of centre' ... we all want to make the environment better (and have successful businesses), however, sometimes the 'green' agenda is over the top. A more balanced approach is needed if you want to be an industry leader."

Another respondent stated, "Keep up the good work. I enjoy reading this magazine, I have even left it on a flight one day after reading it and handing it over to a passenger next to me." Yet another suggested, "More information about response to spills and the handling of them," and another said, "HMM is a very well rounded publication...keep doing the same thing."

When asked if advertising they see in the magazine reflects the products or services you purchase, readers answered "yes" or "somewhat" (85.4%) and "no" (14.6%). We asked readers to please provide any other comment you may have about *HazMat Management's* print magazine or on-line services. Replies included: "It provides insight into activities and changes in the industry." "Generally looks like a good, on-topic magazine... I look forward to getting to know it better in the future." "Gives me somewhere to start looking for products." And "The on-line version is very easy to read. Content is good." (among other replies.)

Finally, we are considering changing the name of *HazMat Management* magazine but will have to think about that carefully as responses to our other title suggestions were mostly indifferent or negative, and in answer to "No, just keep *HazMat Management* magazine, 47.7% stated they "like it strongly" and 33.9% said they "like" it.

HMM