

Ethics as a Safety Factor

An ethical corporate culture can balance the possible adverse safety consequences of concentrating on profit.

BOOKS

Preventing Corporate Accidents: An Ethical Approach

Whittingham, R.B. Oxford, England, and Burlington, Massachusetts, U.S.: Butterworth-Heinemann, 2008. 370 pp. Figures, tables, references, appendixes, index.

Although no one doubts that there are ethical as well as practical reasons for corporations to prevent accidents, ethical issues are probably not the first thing that comes to mind in considering what corporations can do to enhance operational safety. Whittingham's book examines corporate behavior from many angles, but its perspective is unusual in taking into account the safety consequences of the growth of "the huge international corporations which have come to dominate the world of commerce."

The separation of ownership and control, and the legal principle of limited liability, result in "a situation where any philanthropic instinct or sense of moral duty which owners might have displayed in the past has become largely subservient to the claims of profit and share price," Whittingham says.

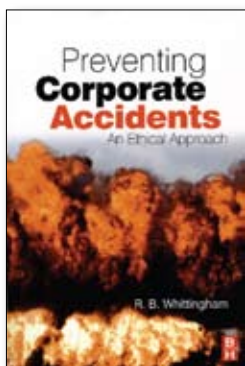
Legally, a corporation is an artificial person. Nevertheless, Whittingham says, "the corporation has essentially no motivation to act in an ethical way outside the established legal framework, in

the same way a human actor may be motivated to do." He quotes Baron Thurlow, an 18th century English jurist and lord chancellor: "Did you ever expect a corporation to have a conscience, when it has no soul to be damned and no body to be kicked?"

While no known corporation has a Department of Soul in its organization chart, a metaphorically kickable body is to be found in the corporation's vulnerability to criminal law (ASW, 3/08, p. 12; 5/08, p. 36). The "kickability" factor recently increased in the United Kingdom, where the Corporate Manslaughter and Corporate Homicide Act went into effect in April 2008, making an organization guilty of corporate manslaughter if someone dies because the organization's conduct "falls far below what can reasonably be expected of the organization in the circumstances."

Apart from criminal charges, corporations are subject to numerous regulations bringing the risk of fines and, perhaps more important, the "loss of corporate reputation, which can seriously damage customer confidence and sometimes threaten the very existence of the company," Whittingham says.

He suggests that, in practice, a sense of corporate ethics is the best defense against penalties arising from unsafe acts: "If the modern corporation is to limit its own exposure to risk, it needs not only to take account of its strict



legal responsibilities, but also to subscribe to ethical policies which constitute a safety margin between normal and illegal operation.”

Six specific systems, called “strategies,” are identified as being essential to the needed standards for safety, as well as health and environmental protection. The first strategy is “safety culture,” and Whittingham says that “the effectiveness of the other five strategies ... is highly dependent upon the culture of the organization and whether this encourages or inhibits the day-to-day application of these strategies.”

There are two basic ways to understand corporate culture, Whittingham says. The classic approach consists of factors that can be measured or observed, although some may be more subtle than others. In the Gestalt approach, “the whole is more than the sum of its parts, and to some degree the parts are determined by the whole.”

The Gestalt approach “seems to suggest that an organizational culture (including a safety culture) is not something that can be developed or intentionally shaped by a company to conform to a desired pattern,” Whittingham says. “Rather, it suggests that organizational culture is ‘emergent’ — behavior that takes place because of individuals in the group interacting with each other independently of any plan from “above.”

Either way, he says, it is doubtful that a safety culture can be generated merely through proclaimed values. “Certainly those at the top of the organization must set an example when espousing the values of the company’s safety culture, but then they must ensure that the espoused values permeate through the whole enterprise and truly reflect the basic assumptions which underpin the way people behave and operate,” he says. “Whereas artifacts such as safety notices and indications of safety performance, such as hours worked since a lost-time accident, are useful in promoting the idea of safety, there is little evidence that they influence employee attitudes.”

To promote organizational culture change that is more than skin-deep, Whittingham proposes a three-step process:

- Create dissatisfaction with the status quo. “In order to change the culture, it is necessary for the people to change, and people will only change when they accept that change is necessary. It is always easier to carry on in the same way. The corollary of this is that it is only possible to change an organization which has accepted the disadvantages of operating the same way in the future as it does in the present.”
- Create a vision. “The vision must be expressed in a qualitative way so that people not only understand it, but can become enthusiastic or even excited about it. This is why safety goals and targets are only a means to an end and not an end in themselves. However much management may like to express their achievements in terms of safety targets which have been met, and no matter how laudable, it is rare that numerical targets create great excitement among the work force. People do not get excited by visions of hours since a lost-time accident. They may, however, get excited about a vision of shared leadership in an organization in which their view and concerns about safety are taken into account.”
- Create challenge but not fear. “When people are faced with the unknown they may feel inadequate to cope with the future. People who are being led through the labyrinth of change must know that they are trusted by those who are leading the change. This will help to overcome their self-doubt, enabling them to follow the vision of the future which is on offer.”

Whittingham defines the strategies that flow from the safety culture as “understand the risk,” “safety regulation,” “safety management,” “the learning organization” and “corporate social responsibility.” The first three he classifies as “pragmatic” because “each is specifically directed towards a particular aspect of accident prevention rather than across all corporate

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activities at the same time.” The next three are called “holistic” because “these strategies must be applied across every aspect of corporate life (not just accident prevention) if they are to be effective as a whole in reducing the incidence of corporate accidents. When perfectly applied, it is possible to imagine all the parts of the corporate body working effectively towards a common ethical purpose.”

REPORTS

Review of the Air Traffic Controller Facility Training Program

U.S. Department of Transportation, Office of Inspector General (OIG). Report AV-2008-055. June 5, 2008. 51 pp. Figures, tables. Available via the Internet at <www.oig.dot.gov/item.jsp?id=2308>.

Developmental controllers — those who have not yet become certified professional controllers (CPCs) — made up more than 25 percent of the U.S. Federal Aviation Administration’s (FAA’s) national controller work force in December 2007, compared with about 15 percent in 2004, the OIG says. The report’s findings are based on a review conducted between June 2007 and March 2008 of FAA air traffic control (ATC) facilities and a visit to the FAA Training Academy.

The FAA estimates that each ATC facility can conduct operations and training with a controller work force of up to 35 percent developmental controllers. It believes that any excess above that percentage will significantly increase training times, because the number of developmental controllers will surpass the training capacity.

“We found that many facilities meet or exceed the 35 percent level,” the report says. “As of December 2007, 70 facilities nationwide (over 22 percent of all FAA ATC facilities) exceeded that level, compared to just 22 in April 2004. This represents a 218 percent increase in just three years.”

The report says that many facility managers, trainers and union officials with whom inspectors spoke disagreed with the FAA’s estimate of the acceptable percentage. “They

stated that in order to achieve effective controller training while maintaining daily operations, the maximum percentage of developmental controllers should be limited to between 20 and 25 percent of a facility’s total controller work force.”

Following a controllers’ strike, the FAA in 1982 and 1983 hired 8,700 new controllers, which created a large cohort of controllers who have reached or will soon reach retirement eligibility. Anticipating the need for replacing them, the FAA plans to recruit about 17,000 new controllers through 2017.

“FAA has hired 3,450 new controllers since 2005, but its hiring process is now outpacing the capabilities of many air traffic facilities to efficiently process and train new hires,” the report says. “During our review, facility managers at numerous locations stated that developmental controllers assigned to their facilities had to wait for extended periods of time before starting the simulator portion of their training because the number of developmental controllers exceeded facility training capacity.”

The inspectors found confusion about who was responsible for oversight and direction of the facility training program at the national level.

“Since the creation of the Air Traffic Organization (ATO), FAA has assigned national oversight responsibility for facility training to the ATO’s vice president for terminal services and vice president for en route services,” the report says. “In addition, the ATO’s vice president for acquisition and business services oversees new controller hiring and the FAA Academy training program, and the senior vice president for finance oversees the development of the Controller Workforce Plan. All four offices play key roles in the controller training process. ... During our review, facility managers, training managers and even headquarters officials were unable to tell us who or what office was ultimately responsible for facility training.”

The OIG issued 12 recommendations to the FAA as a result of the review. They included the following:

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- “Convene a working group that includes facility managers, training managers and union representatives to identify a target percentage or percentage range of developmental controllers that facilities ... can realistically accommodate while accomplishing facility training and daily operations”;
- “Establish a method for placing newly hired controllers at facilities that considers the availability of on-the-job instructors, classroom space and simulators, as well as training requirements of existing CPC staff”;
- “Issue written guidance that hold managers accountable for achieving nominal ‘time-to-certify’ metrics for en route and terminal training programs”; and,
- “Ensure that the installation of additional simulators at terminal and en route facilities remains on schedule to capitalize on the significant success this type of training has demonstrated thus far.”

The FAA fully concurred with eight of the 12 recommendations, partially concurred with two and did not concur with two.

Passenger Health — The Risk Posed by Infectious Disease in the Aircraft Cabin

Talbot, Debra; McRandle, Brendan. Australian Transport Safety Bureau (ATSB). AR-2007-050. Final report. June 10, 2008. 38 pp. Figures, references. Available via the Internet at <www.atsb.gov.au/publications/2008/AR2007050.aspx> or from ATSB.*

“The environment in aircraft cabins is receiving increasing attention as a possible problem environment with regard to air quality for both passengers and crew,” the report says. “There is a perception that cabin air quality is poor on modern aircraft due to limited outside air exchange and the incorporation of air recirculation systems. Specific perceptions are that aircraft ventilation systems can cause a build-up of contaminants; spread of infectious disease; a decrease in the quantity of oxygen; and heightened carbon dioxide levels.”

A moderate level of concern about cabin air quality intensified with the emergence of severe acute respiratory syndrome (SARS) in 2002 and avian influenza in Asia more recently. “Confined space, limited ventilation, prolonged exposure times and recirculating air, all common to air travel, are demonstrated risk factors for the transmission of upper respiratory tract infections in other settings,” the report says. “Transmission could occur from person to adjacent person via droplets, such as from sneezing and coughing, or from person to distant person via the air recirculation system.”

The report, which consists largely of a review of relevant epidemiological literature, concludes that “despite the popular view that the risk of contracting an infectious disease during air travel is high, the available evidence suggests otherwise.”

Although in older airliners the flow of ventilating air was generally from the front of the cabin to the back, newer models circulate the air from the top of the cabin downward to the floor, where it is vented and either exhausted or recirculated. The ventilation system is usually designed so that air entering the cabin at a given seat row is exhausted at the same seat row, which limits the amount of air flowing through the aircraft. “Passengers at most risk of any airborne transmission of infection are those in the same or adjacent rows of seats to the infectious passenger, with minimal risk for others,” the report says. “Air is also supplied and exhausted from the cabin on a continuous basis and the cabin air is completely changed every two to three minutes, which further reduces the likelihood of transmission of infection.”

In addition, most aircraft with recirculation systems use high efficiency particulate air (HEPA) filters, the same filters used in hospital operating rooms. The filters remove particulates and microbial contaminants such as bacteria, fungi and some viruses from the recirculated air before mixing it with sterile fresh air to re-enter the passenger cabin. Airliners actually use a smaller proportion of



recirculated air than the ventilation systems in public buildings and do a better job of filtering it, the report says.

“One study has assessed the role of air recirculation in the transmission of upper respiratory tract infections during flight,” the report says. “In this study, the rate of respiratory symptoms after travel was assessed among more than 1,000 passengers on aircraft that used 100 percent fresh air, compared with aircraft that recirculated a substantial portion of cabin air. The aircraft selected were similar and flew identical routes. The study found no evidence that aircraft cabin air recirculation increases the risk for upper respiratory infection.”

The only way to eliminate the risk of transmission of infectious diseases through proximity to a disease-bearing passenger would be to prevent such passengers from flying, an impracticable task. “The risk would also be a lot easier to manage if people with known infectious diseases voluntarily postponed their air travel until they were no longer contagious,” the report says. That, too, it acknowledges, is not likely among leisure travelers who would have to absorb the cost of non-refundable tickets and change their holiday plans.

But proximity transmission of infection can occur anywhere people congregate — shops, restaurants or theaters, for example. “Provided that the recirculation and filtration systems are working properly, the risk of transmission of infection [aboard] an aircraft is probably no greater than, and perhaps less than, other environments where large numbers of people are gathered closely together,” the study says.

The problem of wide dispersal of infectious diseases such as influenza and tuberculosis through international air travel must be taken seriously. “With the possible threat of a new pandemic in the future, which may be more easily transmissible than SARS, a planned response involving the international aviation transport industry will be crucial to limiting both the loss of life and the economic cost resulting from such an outbreak,” the report says. “While a

pandemic flu situation could present much greater challenges than occurred with SARS, the experiences gained and lessons learned from the way the spread of SARS was managed at international airports has been invaluable in creating a pandemic plan.”

WEB SITES

Canadian Aviation Executives’ Safety Network, <www.tc.gc.ca/CivilAviation/regserv/affairs/caesn/menu.htm>

Canadian Aviation Executives’ Safety Network (CAESN), established by Transport Canada, meets annually “to identify aviation safety challenges and mitigation strategies and to provide a forum for dialogue regarding the viability and direction of the aviation industry in Canada,” the Web site says.



Annual meeting reports from 2003 through 2007 and presentations by industry executives and decision makers are free to view online and may be printed or downloaded. Topics include aviation safety, security and safety management systems. ➔

Source

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