

**Awareness, Attitudes and Utilization of Community Right to Know:
Public Relations Practitioners and Environmental Risk Communication**

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Abstract

Environmental and risk communication are best practice functions of public relations, and key areas of strategic communication research. Following Susan G. Hadden's (1989) claim that community right to know is not only a legal subject but a powerful approach to risk communication and by extension public relations, this research project examined the uses of community right to know in environmental law, as well as awareness, attitude, knowledge and utilization of community right to know protocols, and specifically the Emergency Planning and Community Right to Know Act of 1986 (EPCRA), by public relations practitioners who represent organizations who regularly manage health, safety and environmental risks and issues. While the literature review demonstrated that communicators in the field of environmental and risk communication can help their organization increase education and preparedness among community members, divide responsibilities among government, private sector, and communities, empower individuals to make decisions about their neighborhood, and, finally, improve safety by raising standards and reducing risks, a national web-based survey (n = 200 responses) of public relations practitioners, whose job functions include risk and environmental communication, demonstrated they are not fully aware nor fully utilize EPCRA, community right to know protocols and environmental justice concepts in their strategic planning, but that in general they support providing risk information on a regular basis and not just during a crisis.

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The industrial and information ages have created a whole new range of risks, which through modern communication technologies have increased awareness. Headlines shout out newsworthy risks and crises, including major environment and resource issues such as population growth, climate change, agriculture and food supply, fisheries and forests, fossil fuels, water and air quality, and solar and nuclear power. While economic development and technological advances can relieve such problems as food shortages, deforestation, air pollution, and land degradation, and provide clean water, adequate energy supplies, and improved public health, a healthy and transparent discourse related to such issues is the benchmark of effective public relations, risk and environmental communication.

Risk, crisis and ultimately disaster are the definitive challenge to public relations and communication scholars and practitioners who research about or work for organizations, and their related stakeholders and stakeholders, whose business, political or social mission involves managing health, safety and environmental risks. As the factors that have a propensity to increase risk proliferate, such as increasing population density, increased settlement in high-risk areas, increased technological risk, aging U. S. population, emerging infectious diseases and antimicrobial resistance, increased international travel and increased terrorism (Auf der Heide, 1996), risk and crisis communications will play a larger role in Quintilian's (1951) principle of the good person communicating well as a foundation for fostering enlightened choices through dialogue in the public sphere, with social values to be an implicit or explicit part of each statement.

Typical modern crises reflect the increasing size and complexity of modern science, technology and industrial organizations, which crisis managers (including environmental and risk communicators) are called upon to address (Lerbinger, 1997). One of the most horrific modern industrial crisis events occurred on December 3, 1984, in which a Union Carbide's pesticide plant accident caused the release of a cloud of the lethal gas methyl isocyanate into the air over Bhopal, a city located in the state of Madhya Pradesh in central India. Thousands died; Amnesty International (2004) counted 7,000 deaths immediately after the release and another 15,000 deaths due to associated illnesses in the following years. Though the exact figures are a point of contention among involved parties, it is estimated that more than 100,000 still suffer from diseases associated with the toxic gases.

Two years after the disaster, after 145 law suits against Union Carbide and the occurrence of other incidents on American soil including a Union Carbide's plant in West Virginia release of another toxic gas in 1985 that injured 135 people (New York Times, 1985), the U.S. Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA) in order to provide citizens with information about hazardous materials present in their communities through reports submitted by industry (EPCRA, 1986). Part of the reason for the passage of EPCRA was a U. S. federal government sponsored research project identifying more than 7,000 accidents of various kinds related to hazardous materials between 1980 and 1985 (Falkenberry, 1995).

According to Hadden (1989), the regulation by itself is useful but not enough to avoid accidents like the one in Bhopal. Crude technical information about the proximity of hazardous materials alone does not empower citizens to control or prevent disasters in industrial facilities. Few states had right-to-know laws before the federal regulation was passed. Hadden determined

that the number of citizens who were actively using those laws for any practical reasons were very low, mostly due to the fact that people in the communities ignored the existence of the law, while local governments and companies were not making an effort to educate them about it.

Within EPCRA's (1986) guidelines, the burden of informing the population belongs to organizations that work with, manufacture, refine or store hazardous materials, with a unique responsibility for the strategic communication of health, safety and environmental risks falling on the shoulders of corporate communicators, particularly public relations practitioners, specializing in risk and environmental communication. According to Hadden (1989), the numbers of citizens who are able to use the law effectively can be increased with the use of communicative educational practices that translate technical information into useful and empowering knowledge to communities. Lewis (2005) argued that those practices are more than a legal requirement, but also a moral duty because access to quality information can effectively prevent disasters and help combat environmental discrimination. According to recent research (Jacobson, 2003; Johnson, 2005; Palenchar, Heath & Dunn, 2005), knowledge about the presence and risks of hazardous and toxic chemicals in nearby facilities can even help to diminish the risk of terrorist attacks.

Beyond the legal requirement, public relations practitioners and scholars have a community and global responsibility to communicate for social impact (Palenchar, 2005). Part of that challenge for risk communicators in particular is the use of community right to know in environmental law and its application to risk communication, and the obligation of the field to ensure practitioners and community risk bearers are aware of the legal and regulatory responsibilities of community right to know provisions. This research, then, assessed the uses of community right to know in environmental law, as well as awareness, attitude, knowledge and

utilization of community right to know protocols, and specifically the EPCRA, by public relations practitioners who represent organizations who regularly manage health, safety and environmental risks and issues.

Right to Know

EPCRA is a document divided in two parts. The first regulates the emergency planning requirements for the states and the second “provides for public access to mandatory reports filed by industries concerning their chemical releases and general chemical inventories” (Falkenberry, 1995, p. 4). The regulation passed by the U.S. Congress in 1986 limited this right to know to a list of 400 extremely hazardous substances out of 60,000 chemicals in commercial use in the United States at the time (EPCRA, 1986). In this way, the right to know observed in the Environmental Impact Statement carries a duty to inform that falls only on risk-generating organizations with their obligation to provide complete, truthful and accurate reports to the local governments (EPCRA), but not on the government, which, according to Hadden (1989), should “ensure that the other parties can exercise their rights and fulfill their responsibilities... [by] designing and, if necessary, redesigning public policies” (p. 217).

EPCRA also allows citizens to enforce the law (Bass & MacLean, 1993; EPCRA, 1986). However, to be able to enforce the law, citizens need first to be able to access, understand and process the information into action (Bass & MacLean, 1993; O'Rourke & Macey, 2003; Shapiro, 2005). According to the agency's own regulations, the Environmental Protection Agency (EPA) has an affirmative responsibility to collect and disseminate information that furthers public health and environmental goals (Bass & MacLean, 1993). According to the EPA (1997), “Empowering the public with information helps assure [industry] compliance with existing laws

and encourages companies to take additional measures to reduce industrial chemical releases” (p. 3).

One way EPCRA (1986) promotes public participation in the decision-making process is through the requirement of the formation of Local Emergency Planning Committees (LEPC), which are designed to plan for manufacturing emergencies and to serve as monthly community forums where nearby residents, government officials, industry representatives, health and safety officials, and any other concerned individuals and organizations could request information and voice concerns. EPCRA and LEPCs have four major provisions: emergency planning (Section 301-303), emergency release notification (Section 304), hazardous chemical storage reporting requirements (Sections 311-312) and the Toxic Release Inventory (TRI; Section 313), which requires a publicly available, EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities.

Although the right to know as an approach to policymaking took an important transformational step with EPCRA, it has its roots in the first U. S. constitutional convention. James Wilson, arguably one of the most influential lawyers among the American Founding Founders (National Archives, 2007), argued that the right to know should be used as a way for the public to have some control over their elected officials. Later on, the press argued for the public’s right to know against censorship during World War II, but only in the mid 1980’s did the right to know become an established federal law (Hadden, 1989).

Jacobson (2003) identified the Freedom of Information Act of 1966, an amendment to the Administrative Procedure Act signed by President Lyndon Baines Johnson, as the first statutory regulation that included the right to know principle. However, as Jacobson noted, the Freedom of

Information Act “was not an environmental statute, but a broader effort” (p. 344) to establish a statutory right to access government information. Jacobson also distinguished the right to know in the National Environmental Policy Act (NEPA) from the one in EPCRA:

[W]hile NEPA was certainly a groundbreaking statute in the broad public ‘right-to-participate’ sense, it does not clearly fit into the narrower ‘right-to-know’ category which is more often thought of as a scheme in which polluters are required to disclose their processes and other information. The first true right-to-know provision in a substantive environmental statute would not become law until 1986. (p. 348)

Hadden (1989), on the other hand, concluded that, although there are many approaches to the concept of right to know, they are not “entirely distinct, blurring into each other on the edges. Thus, a more appropriate image would be that of a continuum of rights to know, with the four points marking transitions” (p. 203). The four points, according to Hadden, are: basic right to know, right to know for risk reduction, participatory right to know (decision making), and right to know for changing the balance of power.

In this way, the literature in the field reaches a rare consensus about the importance of right to know in order to achieve the different objectives laid down by Hadden. Researchers have found that access to quality of information is essential to empower communities to be able to discuss with corporations and governments in a balanced position of power (Branch & Bradbury, 2006; Bullard, 1994; Helfand & Peyton, 1999; Kellogg & Mathur, 2003; Lewis, 2005; O'Rourke & Macey, 2003; Shapiro, 2005; Webler & Tuler, 2006). Moreover, the quality of information has to meaningfully build the community's capacity to use it to improve participation in the decision-making process (Branch & Bradbury, 2006; Hamilton & Wills-Toker, 2006; Shapiro, 2005; Webler & Tuler, 2006). Finally, once the access to meaningful information is provided, the

ability of the community to process it and turn it into action is one of the most important factors in risk and pollution prevention and in the development of sound and equalitarian environmental regulation (O'Rourke & Macey, 2003; Shapiro, 2005; Skanavis & Koumouris, 2005).

Right to Know After 9/11

Of special interest for risk communicators is the advent of the U. S. Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (Patriot Act) Act of 2001. The terrorist attacks of September 11, 2001, led to heavy reassessments on whether information about potential targets for terrorists should be disclosed in any way.

The issue has generated fierce debate between environmental activists and industry representatives. The focus of the debate has been on the conflict between dissemination of information to the public and attempting to keep potentially harmful data out of the hands of terrorists. (Jacobson, 2003, p. 329)

Babcock (2007) suggested that that the events of 9/11 brought into sharp focus the clash between safety and other values like the right to a healthy environment. According to Jacobson (2003), soon after the attacks many governmental agencies began to pull sensitive information from their websites and other sources. The U.S. Geological Survey, for an example, recalled a CD-ROM containing information on bodies of water and asked all recipients to return it (Associated Press, 2002). With the introduction of the Patriot Act in October 2001 and the Critical Infrastructure Information Act of 2002 many corporations used the excuse of protecting sensitive targets from terrorist attacks to stop providing information about hazardous materials to communities under the EPCRA (Cheroukas, 2007). Babcock (2007) described how the Patriot

Act undermined many provisions of the Freedom of Information Act and EPCRA, among many other environmental laws about right to know and access to information.

While the discussion between national security and community's right to know have become very inflamed (Cheroukas, 2007; Jacobson, 2003; Johnson, 2004), authors in the field of environmental law believe that the community's right to know does not hamper efforts to improve national security, and that it actually improves safety and security awareness in the involved communities (Bass & MacLean, 1993; Cheroukas, 2007; Jacobson, 2003; Lewis, 2005). This awareness allows the initiation of the process to increase public participation (Branch & Bradbury, 2006; Bullard, 1994; Helfand & Peyton, 1999; Kellogg & Mathur, 2003; Lewis, 2005; O'Rourke & Macey, 2003; Shapiro, 2005; Webler & Tuler, 2006) and, then, to accountability of companies that produce, store or transport hazardous materials to have a plan not only for spills and disasters, but also for terrorist attacks (Bass & MacLean, 1993; Cheroukas, 2007; Jacobson, 2003; Johnson, 2004; Skanavis & Koumouris, 2005). Sometimes, that accountability can even drive a facility to change the use of some toxic chemicals for less hazardous ones, becoming less likely to be targeted by terrorists at the same time it becomes less risky for the surrounding community and environment (Jacobson, 2003; Johnson, 2004).

According to Cheroukas (2007), the Toxic Release Inventory required in EPCRA is an example of how states can use legal measures to attend the community's right to know without putting homeland security in harm's way by requiring information that is beneficial to local communities while respecting legitimate security concerns. For Hadden (1989), people have a need to know about the kind of dangers they are being exposed to by man-made activities – usually related to the presence of industrial and military facilities. The simple fact that people know the names of the substances that might be released from any surrounding facilities helps

the relief efforts conducted by medical and other contingency personnel. Nonetheless, more can be done within the concept. Hadden saw the “need to know” in much broader sense than just acquiring information:

By definition, right to know is an information policy. Although we have realized for more than a decade that we have entered the ‘information age,’ our society has still not defined the proper role of government in creating information, making it available, or ensuring its accuracy. We have failed even to clarify who owns or may use information embodied in the not-so-new technologies of videotape, television, and computer. Our preoccupation with educational reform may stem in part from our inchoate understanding that our children and our society will not survive unless they can master the deluge of information that inundate us – acquire it, store it, understand it, assess its quality, and use it. (p. 4)

Environmental and Risk Communication

Community residents who live near or work at potentially hazardous manufacturing facilities are neither spurious nor false in their reasons and desires to be safe and healthy; they are and should be sensitive to the fairness and equality of risk distribution and the resulting environmental and aesthetic implications (Buller, 1994, Weblor & Tuler, 2006). These are among the numerous motivators people use when deciding whether a problem exists that affects them and deserves their attention, including the option of making personal responses or collaboratively seeking collective solutions by engaging in public policy struggles (Skanavis & Koumouris, 2005).

Environmental communication

Environmental communication is the “planned and strategic use of communication processes and media products to support effective policy-making, public participation and project implementation geared towards environmental sustainability” (Oepen, 2000, p. 41). According to Oepen, to influence the policymaking process is constitutive of environmental communication as much as it is to guarantee the implementation of projects that envision the protection of the natural environment through public participation.

Oepen (2000) saw the role of environmental communication as an educative and engaging social interaction process that enables people to “understand key environmental factors and their interdependencies, and to act upon related problems in a competent way” (p. 41). Hence, environmental communication is not only – not even mainly – a tool for disseminating information, but a process that aims at producing “a shared vision of a sustainable future and at capacity-building in social groups to solve or prevent environmental problems” (p. 41).

Much in accordance to Hadden’s claim, environmental communication is a powerful process to educate lay communities about risk and help governments and other organizations to translate legal and technical information into something that the lay people can understand and use to participate in the decision making process (Oepen, 2000). “The way we communicate with one another about the environment powerfully affects how we perceive both it and ourselves and, therefore, how we define our relationship with the natural world” (Cantrill & Oravec, 1996, p. 2).

Cox (2006) also advocated that one of the essential roles of environmental communication is to function as an educational tool to help public audiences and policymakers understand the nature of environmental contexts. Although he did not directly expressed that, it

seems that Cox' understanding of environmental communication is consistent with Hadden's right-to-know approach, as he has argued that "individuals and communities have a stronger chance to safeguard the environmental health and quality of their local environments if they understand some of the dynamics of and opportunities for communication about their concerns" (Cox, 2006, p. xix). A well-informed public is fundamental for good governance and environmental communication is the right tool for the job for "[i]t educates, alerts, persuades, mobilizes, and helps us to solve environmental problems" (p. 12). It also "helps to compose representations of nature and environmental problems as subjects for our understanding" (p. 12).

Following a complementary approach, Corbett (2006) defined environmental communication as a complex and multi-layered phenomenon. For her, not only the information that is made available but also the way in which that information is made available – the communication process – defines how people and communities see their role in society and the role of society itself.

Risk Communication

Early on the EPA identified risk communication as a means to open, responsible, informed, reasonable, scientific and value-laden discussion of risks associated with personal health and safety practices involved in living and working in close proximity to harmful activities and toxic substances (National Research Council, 1989). This view of risk communication typically involves large organizations whose activities can pose a risk to members of a community. According to Palenchar (2005), "Risk communication provides the opportunity to understand and appreciate stakeholders' concerns related to risks generated by organizations, engage in dialogue to address differences and concerns, and carry out appropriate actions that can reduce perceived risks" (p. 752).

Disciplines do not agree and often assume substantially different interpretive approaches to risk. Althaus (2005) offered a comparative analysis of the disciplines' approaches to risk by starting with economic conceptualizations that differentiate risk from uncertainty; risk is a structured application of knowledge to the unknown. Among the social sciences, anthropology views risk as a cultural phenomenon, sociology a societal phenomenon, economics a decisional phenomenon related to a means of securing wealth or avoiding loss, law as a fault of conduct and a judicable phenomenon, psychology as a behavioral and cognitive phenomenon, linguistics as a concept, history as a story, arts as an emotional phenomenon, religion as an act of faith, and philosophy as a problematic phenomenon (2005).

Risk communication is also grounded in various other academic and applied orientations, including: actuarial approach utilizing statistical predictions, a toxicological and epidemiological approach, an engineering approach including probabilistic risk assessments, and cultural and social theories of risk (Renn, 1992). Summarizing these numerous views, Renn concluded that risk communication has evolved from at least three separate streams of thought to guide the way risks are calculated, evaluated and controlled: (1) scientific positivism, whereby data and methodologies of scientists dominate community efforts to ascertain the degree of risk and subsequent communications about the risk; (2) constructivism/ relativism, which assumes that everyone's opinions have equal value; and (3) dialogue, through collaborative decision-making, scientific opinion becomes integrated into policies which are vetted by key publics.

Leiss (1996), having written extensively on the history of modern risk communication, described three eras of the field beginning with a source-oriented approach and ending with the present approach of communication that is based on shared, social relations. Along those lines, one of the most prolific lines of risk communication research involved residents living near risk

environments and the concern that they rely on invalid assumptions of risk. Fischhoff, Slovic, Lichtenstein, Read and Combs (1978; Covello, 1983; Slovic, 1987), among others, initiated "expressed preference" research that involved measuring a wider array of attitudes than benefits to ascertain tolerable risk levels. The researchers found laypeople's risk ratings, unlike those of experts, are not simply influenced by fatality estimates. Differences in judgments were affected by numerous qualitative factors such as familiarity, control, dread, acute, fatal and trust.

As such, there is no single psychology or sociology of risks. "Each society highlights some risks and downplays others; and each society institutionalizes means for controlling some risks and not others . . . Risks are exaggerated or minimized according to the social, cultural, and moral acceptability of the underlying activities" (Brehmer, 1987, p. 28). Risks are not necessarily selected and perceived due to their scientific merit or personal benefit, but out of a combination of social and cultural factors, denotative and connotative reasons.

Hadden (1989) wrote that the role of risk communication, very much like environmental communication, is to function as a learning system that provides citizens with an understanding of risks, hazards and health issues, but that it also works to help people use this knowledge in the political arena, improving public regulation and corporate practices. Risk communication is, then, a democratic tool for participatory citizenship where the right to know is also the right to take part in the process.

Cox (2006) credited the importance of risk communication to the way in which it looks at the effectiveness of communication strategies for conveying information about health and environmental risks, the impact of cultural understanding of risk on the public's judgment of the acceptability of a risk, and the ways to develop more democratic methods to involve affected communities in evaluating risk. As seen in the work of Beck (1992, 1999) and Cox (2006, 2007),

environmental risks are at the core of our understanding of society today. Heath, Palenchar, Protheau and Hocke (2007) reinforced the link between environmental and risk communication:

Environmental communication, like risk communication, integrates a focus on the probative force of various facts in the context of symbolic processes that result from the dynamics of a functional or dysfunctional communication infrastructure. The role of environmental and risk communication, and the essence of its analysis and pedagogy, should be to increase the quality of enlightened decision-making so that societies can be more fully functional in their identification, assessment, and management of risks. This requires the shaping and application of a functional set of shared principles that have scientific validation and reflect the cultural dimensions of a risk society. It is becoming increasingly clear that the main product of environmental and risk communication is not informed understanding as such, but the quality of the social relationship it supports, becoming a tool for communicating values and identities as much as being about awareness, attitudes, and behaviors related to the risk itself. (pp. 45-46)

Therefore, environmental and risk communication are not just ways to inform the public about environmental risks, but processes of using information to form identities, perceptions and behaviors that will diminish – and even completely change - the practices that produce those environmental risks. Environmental and risk communication are, then, cultural forming processes.

In assessing Hadden's postulate, Palenchar (2007) concluded that "strategic risk communication highlights the importance of a dialogic, relationship-building approach to addressing the concerns and perceptions of community residents and employees, and one of the keys to success is supposed to be community-right-to-know initiatives" (p. 4). As a result of this

understanding, the relationship between those who produce risk and those who will suffer the consequences of the actualization of those risks, including the organizations who try to “speak for” animals and plants, cannot be one of controller (the producer and retainer of the information) and controlled, but one of neighbors who can help each other to avoid that actualization, or, at least, to minimize damages in the moment of crisis.

Heath & Palenchar (2000) defended the interrelation of community-relations with risk communication. In accordance with Hadden’s (1989) claim, and other authors in environmental law (Cheroukas, 2007; Jacobson, 2003), they found in their longitudinal study that educating and including the community in risk and crisis planning generates higher awareness and more trust in companies personnel and government officials in the community. They stated that “effective public relations efforts can build community support through collaborative, community-based decisions regarding the kinds of risks that exist and the emergency response measures that can be initiated as needed for public safety. Collaborative planning can prevent risk events or mitigate their impact if they occur. Through joint efforts, the community can become a safer place to operate, live, and work: win–win benefits” (p. 132).

Environmental Justice

While the U. S. environmental movement dates back to the early 1880s and continued to gain strength prior to World War I with the formation of the Sierra Club and the National Audubon Society as well as being sparked in the 1960s by Rachel Carson’s book *Silent Spring* (Taylor, 1997), the 1970s witnessed a grassroots effort that was spawned by residential reactions known as environmental justice. The environmental justice movement began to emerge from geographic areas that were primarily populated by people of color, working classes, or lower

economic status that had been affected by air water, and soil pollution (Pellew & Brulle, 2005; & Gotlieb, 1993).

Beyond EPCRA and community right to know, the concept of environmental justice is an important part of the environmental risk communication model. Among the most important issues in contemporary environmental and public relations communications, environmental justice addresses perceived race and class inequities in the distribution of environmental risks.

The EPA (1998) defined environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work” (introduction, para. 1).

Cable and Cable (1995) identified three social forces in the 1980s that promoted the perception of race and class injustice among the working class. Love Canal and Three Mile Island are examples of the first; corporate state structure and class interests are exposed. The second was the environmental deregulation of the Reagan administration, and the third was the trickle-down environmental grievances revealed through the discoveries of more contaminated communities. Cole and Foster (2001) suggested that the foundations for the environmental justice movement were fed by the civil rights movement, anti-toxics movement, the work of academicians, Native American struggles, the Labor Movement, traditional environmentalists, and environmental justice activists.

The environmental justice movement is different from the larger environmental movement that had been active in the United States since in the late 1800s (Taylor, 1997). Instead of national environmental movements reacting to large-scale crises and the media calling attention to environmental problems, environmental justice develops and primarily works from the grassroots level. Working from the grass roots level, the environmental justice movement has defined itself to include “where people live, work, play, go to school, as well as, how these things interact with the physical and natural worlds” (Bullard, n.d.). The environmental justice movement is a “political response to the deterioration of the conditions of everyday life as society reinforces social inequalities” (Pellow & Brulle, 2005, p. 3) and has sought to “redefine environmentalism, as much more integrated with social needs of human populations” (p. 3). The environmental justice movement is a loose alliance of grassroots efforts that has emerged as a response to the current environmental paradigm to challenge perceived practices, policies and conditions that are felt to be unfair, unjust or outright illegal.

Gouldson (2006) examined the relationships between corporate social responsibility and environmental justice. Using data collected from 2003-2005 on oil refineries in the European Union and the United States, the study concentrated on three basic areas: 1) a qualitative evaluation of corporate social responsibility policies of nine petroleum-based companies; 2) a quantitative site-level practices of environmental performance of refineries in the European Union and the United States; and 3) to quantitatively describe variances in environmental performance of refineries in relation to the principles of environmental justice. The findings in the first area showed that the three largest companies had the best corporate social responsibility policies than did the smaller firms in the survey. More importantly, at the local level, there were correlations between refineries with higher levels of emissions and refineries in lower levels of

income, employment, and population density (Gouldson, 2006). Overall, while environmental justice is not a direct part of EPCRA it is a fundamental concept in discussion about community right to know and effective and informed risk decisions assisted through strategic and ethical risk and environmental communication.

Research Questions

From this summary of the related literature, this research paper addressed the following research questions. Hypothesis are not provide since there is no available base-line data in relationship to public relations practitioners awareness, attitudes, knowledge or behavioral inclinations regarding EPCRA, community right to know initiatives nor environmental justice.

RQ1: Are public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, aware of EPCRA, community right to know provisions and the concept of environmental justice?

RQ2: Do public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, consider EPCRA, community right to know and environmental justice an essential part of risk communication strategies?

RQ3: Do public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials,

utilize EPCRA, community right to know and environmental justice concepts in developing risk communication strategies?

RQ4: What are public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, attitudes regarding how important is it for the community to know about chemicals or other potentially hazardous materials being produced, refined, transported or stored in their communities?

Methodology

As part of an ongoing risk communication research program, a national U. S. web-based survey (n = 200; total surveyed =573; 34.9% return rate) of public relations practitioners was conducted by a professional survey company to provide baseline, descriptive assessment related to EPCRA, community right to know provisions and environmental justice. Public relations practitioners whose primary job functions in the area of community relations, risk communication or crisis communication and work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials was conducted to assess practitioners knowledge, attitudes and behaviors were surveyed, filtering out public relations and other communication practitioners whose job responsibilities do not fall in these categorical functions.

Specifically, the survey measured practitioners awareness of the Emergency Planning and Community Right to Know Act of 1986, utilization of EPCRA's provisions in communication strategies, awareness of community right to know provisions, concepts related to environmental

justice, and attitudes on whether, how much and to what effects the sharing of risk information has on a community and company support. The survey consisted of a mix of 14 closed questions. The instrument used a 4-point Likert scale for most questions, with rating of 1 (*strongly disagree*), 2 (*disagree*), 3 (*agree*), and 4 (*strongly agree*), with no option for a neutral or unsure response.

Results

Research question one (see Table 1) asked if public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, are aware of EPCRA, community right to know provisions and the concept of environmental justice. Practitioners were somewhat but not strongly aware of EPCRA ($M = 3.1$), community right to know provisions ($M = 2.8$), and the concept of environmental justice ($M = 2.9$).

Research question two (see Table 1) asked whether public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, consider EPCRA, community right to know and environmental justice an essential part of risk communication strategies. Practitioners somewhat but not strongly considered EPCRA ($M = 2.6$) and community right to know provisions ($M = 2.6$) an essential part of risk communication strategies for their company, and to a lesser extent considered environmental justice ($M = 2.2$) an essential part of their organization's risk communication strategies.

Research question three (see Table 1) asked if public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, utilized EPCRA, community right to know and environmental justice in developing risk communication strategies. Practitioners stated they utilized community right to know provisions ($M = 2.5$) and environmental justice concerns ($M = 2.4$) more than EPCRA's provisions ($M = 2.1$).

Research question four (see Table 2) asked public relations practitioners, whose primary job functions include community relations, risk communication or crisis communication and who work for organizations that produce, refine, transport or store chemicals or other potentially hazardous materials, attitudes regarding how important is it for the community to know about chemicals or other potentially hazardous materials being produced, refined, transported or stored in their communities. Practitioners felt strongly that the community in which their organization operated should be provided risk information ($M = 3.4$) and that the community should be provided this information on a regular basis ($M = 3.1$). Practitioners somewhat felt that this type of information would align community residents against their company ($M = 2.2$). Practitioner strongly disagreed that risk information should only be provided in case of an emergency ($M = 1.8$) and that risk information would create a panic for community residents ($M = 1.4$).

Discussion

Although the survey results showed a medium to high level of awareness about the existence of EPCRA, community right to know and the concept of environmental justice, it shows that there is a lot that can be done to improve the awareness and applicability of these

protocols and concepts into environmental risk communication practices in their companies. The research also demonstrated that while these practitioners are aware, they consider to a lesser extent the strategic importance of these elements to risk and crisis communication.

Even more problematic is that the practitioners surveyed actually utilized less than they were aware of the elements of EPCRA, community right to know or environmental justice in developing environmental or risk communication strategies. According to the academic literature, an approach based on community right to know for environmental risk and crisis communication as proposed by Hadden is not only desirable but also urgent to improve loss of lives and damages to communities and to the environment. Hadden's (1989) call for institutions that allow and encourage citizens to work with both government and private industry, transforming the right to know in a right to participate in formulating policies is well met in the literature on environmental law, environmental communication, risk communication, and crisis communication but is not fully considered or utilized in strategic communication planning. And unfortunately even more, this call was originally made almost twenty years ago and subsequently supported by numerous though not all researchers, institutions, industry associations and government agencies.

At the same time, some positive baseline descriptions noted that these public relations practitioners believe they should regularly communicate risk information, and that risk information should not only be provided in the extent of an emergency nor create panic among community residents. However, their mixed attitudes towards whether they perceived that such risk communication would align community residents against their company suggests some troubling underlying perceptions about the effectiveness and value of risk communication in relationship to industry and company support. Palenchar and Heath (2007) demonstrated over ten

years of longitudinal research that increasing community residents' awareness and knowledge of risk does not necessarily translate into negative perceptions of the risk generator and that it often increases support for the risk generating organization.

Authors in the field of environmental and risk communication (Cox ,2007, Heath & Palenchar, 2000; Palenchar & Heath, 2007) believe the role of communicators working in organizations that process or store toxic and hazardous materials is to work with the community, building their capacity to understand risk and participate in the decision-making process. That role would not only benefit communities but also companies and governments by creating better relations among stakeholders, cutting down on governmental expenses, and creating a positive and self-controlling process that has quality of life and good relationships as the center of the process.

Conclusion

Today's risk society, as Beck (1992) predicted, showed the world that exclusive reliance in command and control and market-based forms of controlling risks are not enough. According to the German author, only with the involvement of the community in public policy issues will the nations be able to reduce risks by increasing personal and public responsibility on one side, and governmental and corporate accountability on the other.

As seen here, community right to know is both a powerful legal tool and an environmental and risk communicational approach to boost public participation in public affairs and reduce both internal and external risks in society. Therefore, to increase training about EPCRA, community participation, and environmental risk communication not only for companies' employees, including management, but also for the local communities and

governments seems to be a logical step towards a solution. Future research should focus in assessing and improving the number and quality of training programs offered by different organizations and local government. In this manner, this research project and paper addresses the International Communication Association's theme of communicating for social impact in a variety of manners, including meeting society's most significant challenges, framing our research in ways that have a direct consequence of public policy, and more equitable economic and social landscapes.

Reference

- Althaus, C. E. (2005). A disciplinary perspective on the epistemological status of risk. *Risk Analysis*, 25(3), 567-588.
- Amnesty International. (2004). *A bitter wind in Bhopal*. Retrieved June 28, 2007, from <http://web.amnesty.org/wire/December2004/Bhopal>
- Associated Press. (2002, May 9). *Public records tougher to view since Sept. 11*. Retrieved July 25, 2007, from: <http://www.firstamendmentcenter.org/news.aspx?id=3918>
- Aug der Heide, E. (1996, May). Disaster planning, part II: Disaster problems, issues and challenges identified in the research literature. *Emergency Medical Clinics of North America*, 14(2), 453-480.
- Babcock, H. (2007). National security and environmental laws: A clear and present danger? *Virginia Environmental Law Journal*, 25(2),
- Bass, G. D., & MacLean, A. (1993). Enhancing the public's right-to-know about environmental issues. *Villanova Environmental Law Journal*, 4, 287-310.
- Beck, U. (1992). *Risk society: Towards a new modernity*. (M. Ritter, Trans.). London: Sage Publications. (Original work published 1986)
- Beck, U. (1999). *World risk society*. Cambridge: Polity Press.
- Belke, J. C. (2000). *Chemical accident risks in U.S. industry – A preliminary analysis of accident risk data from U.S. hazardous chemical facilities*. Washington, D.C.: U. S. Environmental Protection Agency.
- Branch, K. K., & Bradbury, J. A. (2006). Comparison of DOE and Army advisory boards: Application of a conceptual framework for evaluating public participation in environmental risk decision making. *The Policy Studies Journal* 34(4), 723-753.

- Brehmer, B. (1987). The psychology of risk. In W. T. Singleton & J. Hovden (Eds.), *Risk and decisions* (pp. 25-39). New York: Wiley.
- Bullard, R. D. (n.d.). *Environmental justice in the 21st century*. Retrieved October, 12, 2007 from [http://www.ejrc.cau.edu/ejin the21stcentury.htm](http://www.ejrc.cau.edu/ejin%20the21stcentury.htm)
- Bullard, R. D. (1994). Overcoming racism in environmental decisionmaking. *Environment*, 36(4) 10-20, 39-44.
- Cable, S., & Cable, C. (1995). *Environmental problems grassroots solutions: The politics of grassroots environmental conflict*. New York: St. Martin's Press.
- Cantrill, J. G., & Oravec, C. L. (1996). *The symbolic earth: Discourse and our creation of the environment*. Lexington: University of Kentucky Press.
- Chekouras, K. (2007). Balancing national security with a community's right to know: maintaining public access to environmental information through EPCRA's non-preemption clause. *Boston College Environmental Affairs Law Review* 34, 107.
[Electronic Version]
- Cole, L. W., & Foster, S. R. (2001). *From the ground up: Environmental racism and the rise of the environmental movement*. New York University Press.
- Corbett, J. B. (2006). *Communicating nature: How we create and understand environmental messages*. Washington, DC: Island Press.
- Covello, V. T. (1983). The perception of technological risks: A literature review. *Technological Forecasting and Social Change*, 23(4), 285-297.
- Cox, R. (2006). *Environmental communication and the public sphere*. Thousand Oaks, CA: Sage.

- Cox, R. (2007). Nature's "crisis disciplines": Does environmental communication have an ethical duty? *Environmental Communication: A Journal of Nature and Culture*, 1, 5-20.
- Environmental Protection Agency. (2007). *Environmental justice*. Retrieved October 31, 2007, from <http://www.epa.gov/compliance/environmentaljustice/index.html>
- EPCRA. (1986). 42 U.S.C. 11001 et seq.
- Falkenberry, E. M. (1995). The Emergency planning and Community Right-to-Know Act: A tool for toxic release reduction in the 90's. *Buffalo Environmental Law Journal*, 3(1), 1-36.
- Fischhoff, B., Slovic, P., Lichtenstein, S., Read, S., & Combs, B. (1978). How safe is safe enough? A psychometric study of attitudes toward technological risks and benefits. *Policy Sciences*, 9(3), 127-152.
- Gotleib, R. (1993). *Forcing the spring: The transformation of the environmental justice movement*. Washington, DC: Island Press.
- Gouldson, A. (2006). Do firms adopt lower standards in poorer areas? Corporate social responsibility and environmental justice in the EU and the US. *Area*, 38, 402-412.
- Hadden, S. (1989). *A citizen's right to know: Risk communication and public policy*. Boulder, Col.: Westview Press.
- Hamilton, J. D., & Wills-Toker, C. (2006). Reconceptualizing dialogue in environmental public participation. *The Policy Studies Journal* 34(4), 755-775.
- Heath, R. L., & Palenchar, M. J. (2000). Community relations and risk communication: A longitudinal study of the impact of emergency response messages. *Journal of Public Relations Research*, 12(2), 131-161.

- Heath, R. L., Palenchar, M. J., Protheau, S., & Hocke, T. M. (2007). Nature, crisis, risk, science, and society: What is our ethical responsibility? *Environmental Communication: A Journal of Nature and Culture*, 1, 34-48.
- Helfand, G. E., & Peyton, L. J. (1999). A conceptual model for environmental justice. *Social Science Quarterly*, 80(1), 68-83.
- Jacobson, J. D. (2003). Safeguarding national security through public release of environmental information: moving the debate to the next level. *Environmental Law*, 9, 327-397.
- Johnson, S. M. (2004). Terrorism, security, and environmental protection. *William & Mary Environmental Law & Policy Review*, 29(1), 107-158.
- Kellogg, W. A., & Mathur, A. (2003). Environmental justice and information technologies: Overcoming the information-access paradox in urban communities. *Public Administration Review*, 63(5), 573-585.
- Leiss, W. (1996). Three phases in the evolution of risk communication practice. *Annals of the American Academy of Political and Social Science*, 545, 85-94.
- Lerbinger, O. (1997). *The crisis manager: Facing risk and responsibility*. Mahwah, NJ: Erlbaum.
- Lewis, B. C. (2005). What you don't know can hurt you: The importance of information in the battle against environmental class and racial discrimination. *William & Mary Environmental Law & Policy Review* 29(2), 267-326.
- National Archives. (2007). *Charters of freedom: A new world is at hand*. Retrieved November 1, 2007, from http://www.archives.gov/national-archives-experience/charters/constitution_founding_fathers_pennsylvania.html
- National Research Council. (1989). *Improving risk communication*. Washington, DC: National Academy Press.

- New York Times. (1985, December 4). *Averting more chemical tragedies*, p. A30.
- Oepen, M. (2000). Environmental communication in a context. In M. Oepen & W. Hamacher (Eds.), *Communicating the environment: Environmental communication for sustainable development* (pp. 41 – 61). New York: Peter Lang.
- O'Rourke, D., & Macey, G. P. (2003). Community environmental policing: Assessing new strategies of public participation in environmental regulation. *Journal of Policy Analysis and Management*, 22(3), 383-414.
- Palenchar, M. J. (2005). Risk communication. In R. L. Heath (Ed.), *Encyclopedia of public relations* (pp. 752-755). Thousand Oaks, CA: Sage.
- Palenchar, M. J. (2007). Risk communication and community right to know. Presented at the National Communication Association Annual Convention, November 15-18, Chicago.
- Palenchar, M. J., & Heath, R. L. (2007). Strategic risk communication: Adding value to society. *Public Relations Review*, 33, 120-129.
- Palenchar, M. J., Heath, R. L., & Dunn, E. (2005). Terrorism and industrial chemical production: A new era of risk communication. *Communication Research Reports*, 22(1), 59-67.
- Pellow, D.N., & Brulle, R. J. (2005). *Power, justice, and the environment: The critical appraisal of the environmental justice movement*. Cambridge, MA: MIT Press.
- Quintilian, M. F. (1951). *The institutio oratorio of Marcus Fabius Quintilianus* (C. E. Little, Trans.) Nashville, TN: George Peabody College for Teachers.
- Renn, O. (1992). Concepts of risk: A classification. In S. Krimsky & D. Golding (Eds.), *Social theories of risk* (pp. 53-82). Westport, CT: Praeger.

- Shapiro, M. D. (2005). Equity and information: Information regulation, environmental justice, and risks from toxic chemicals. *Journal of Policy Analysis and Management*, 24(2), 373-398.
- Skarvanis, C., & Koumouris, G. A. (2005). Public participation mechanisms in environmental disasters. *Environmental Management*, 35(6), 821-837.
- Slovic, P. (1987). Perception of risk. *Science*, 230, 280-285.
- Taylor, D. (1997). American environmentalism: The role of race, class, and gender in shaping activism, 1820-1995. *Race, Gender, and Class*, 5, 15-62.
- Webler, T., & Tuler, S. (2006). Four perspectives on public participation process in environmental assessment and decision making: Combined results from 10 case studies. *The Policy Studies Journal*, 34(4), 699-722.

Table 1: Awareness and Utilization of Right to Know Provisions	Means
I am aware of the Emergency Planning and Community Right to Know Act of 1986.	3.1
I consider EPCRA an essential part of risk communication strategies of the company.	2.6
I utilize EPCRA's provisions in developing my organization's risk communication strategies.	2.1
I am aware of community-right-to-know communication provisions.	2.8
I consider community-right-to-know provisions an essential part of risk communication strategies of the organization.	2.6
I utilize community-right-to-know provisions in developing my organization's risk communication strategies.	2.5
I am aware of the concept of environmental justice.	2.9
I consider environmental justice an essential part of risk communication strategies of the company.	2.2
I utilize environmental justice concerns in developing my organization's risk communication strategies.	2.4

Table 2: Practitioners Perspectives on Community Risk Awareness

	Means
The community should be provided such information.*	3.4
The community should be provided regularly such information.	3.1
The community should only be provided such information in case of an emergency.	1.8
Providing such information would create panic for community residents.	1.4
Providing such information would align community residents against the company.	2.2

*Practitioners were asked to respond to the following statements regarding how important is it for the community to know about chemicals or other potentially hazardous materials being produced, refined, transported or stored by your organization: