

# **Don't Mention It - Coode Island and Environmental Disclosure Strategies in the Australian Chemicals Industry**

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## **Abstract**

A destructive chemical explosion and fire in 1991 at a chemical storage facility close to Melbourne, Australia, led to massive evacuation of city buildings to escape life-threatening fumes. Legitimacy theory argues that in response to such environmental incidents, companies will change their social and environmental disclosure practices in an effort to legitimise their activities, and a 21-year longitudinal study has revealed a large increase in environmental information provided by the Australian chemicals industry at this time. The purpose of this study is to analyse the very different disclosure strategies in the 1991 to 1993 annual reports of the two largest chemical companies and test the propositions of legitimacy theory in relation to six legitimacy-based disclosure strategies. The findings strongly support legitimacy theory arguments and, more importantly, the method adopted and the attempt made to categorize the disclosures extends previous CSR reporting studies by providing specific evidence of potential legitimising behaviour.

## **Keywords:**

Environment, Annual Report Disclosures, Legitimacy Theory, Historical Event Study.

## Introduction

Corporate social responsibility (CSR) has been on the business agenda for many years and during this time has been the subject of much debate as to its importance to business and society (see Friedman, 1962; Hawken, 1993 for opposing sides of the debate). The recent, well publicised, climate change (amongst other) issues have placed CSR more firmly on the business agenda than ever before and it is clear that business will need to continue to change the way it interacts with society and the environment and how it communicates its actions to its stakeholders. More recently, the release of the Stern Review (2007) and the UN report on climate change (Intergovernmental Panel on Climate Change, 2007) has led to a belated acceptance of climate change as a reality amongst Governments and business. It has unmistakably brought into focus the inter-connected nature of the economic, social and environmental impacts of this phenomenon in what is a clear example of the triple bottom line (TBL) concept<sup>1</sup> (Elkington, 1998) and the 'original' meaning of sustainable development (Brundtland, 1987).

CSR reporting<sup>2</sup> has been prevalent and increasing for most of the last twenty-five years, both in annual reports and separate CSR reports. One of the most recent worldwide studies (ACCA, 2004) indicated that the incidence of CSR reporting has increased substantially, from less than 50 stand alone reports in 1990 to over 1200 by 2003, and that more than 40% of these 1200-plus reports produced in 2003 were separate environmental reports. Another international survey of CSR reporting (KMPG GSS, 2005) found that in 2005, 52% of Global 250<sup>3</sup> (G250) and 33% of National 100<sup>4</sup> (N100) companies issued separate CSR reports, compared with 45% and 23% respectively in 2002. When annual reports are included, the percentages

are 64% (G250) and 41% (N100). In Australia, the number of S&P/ASX 300 companies producing CSR reports has increased in the past decade and in particular from 2002 to 2004 (Centre for Australian Ethical Research et al, 2005). In a longitudinal study covering the years 1983-2003, Gibson & O'Donovan (2005) found that the percentage of Australian companies reporting environmental information in annual reports changed from 46% in 1983 through a low point of 27% in 1986 to 100% from 1999–2003<sup>5</sup>.

The motives for corporate disclosure of CSR information remain controversial despite a great deal of research<sup>6</sup>. Parker (2005) explains this situation and the lack of clarity in the many theoretical explanations that abound. He reiterates Gray et al's (1995) view that CSR studies are split into two broad theoretical categories. The first augments conventional accounting (e.g. stakeholder theory and legitimacy theory) and the second attempts to create an organization-society dialogue (e.g. political economy theory and the deep green ecological perspective). Notwithstanding the development of numerous theories, a lack of specificity and the overlap between many of them, one theory that has gained strong support during the last two decades is legitimacy theory (Gray et al, 2005; Deegan, 2002). This theory, as it relates to an organization, predicts that a company will do whatever is required to preserve its image as a legitimate business in the eyes of its legitimacy conferring stakeholder groups (de Villiers & van Staden; 2006; O'Donovan, 2002). The main credibility of this theory, as an explanation for increases in CSR reporting, relates to two themes consistent in the research. First, firms increase their CSR annual report disclosures after a significant 'legitimacy' threatening issue or event (Deegan et al, 2002; Walden & Schwartz, 1997; Patten, 1992) and, second, that

increased disclosure is related to the issue/event having come to the public's notice (O'Donovan, 1999; Brown & Deegan, 1998; Neu et al, 1998; Patten, 1992).

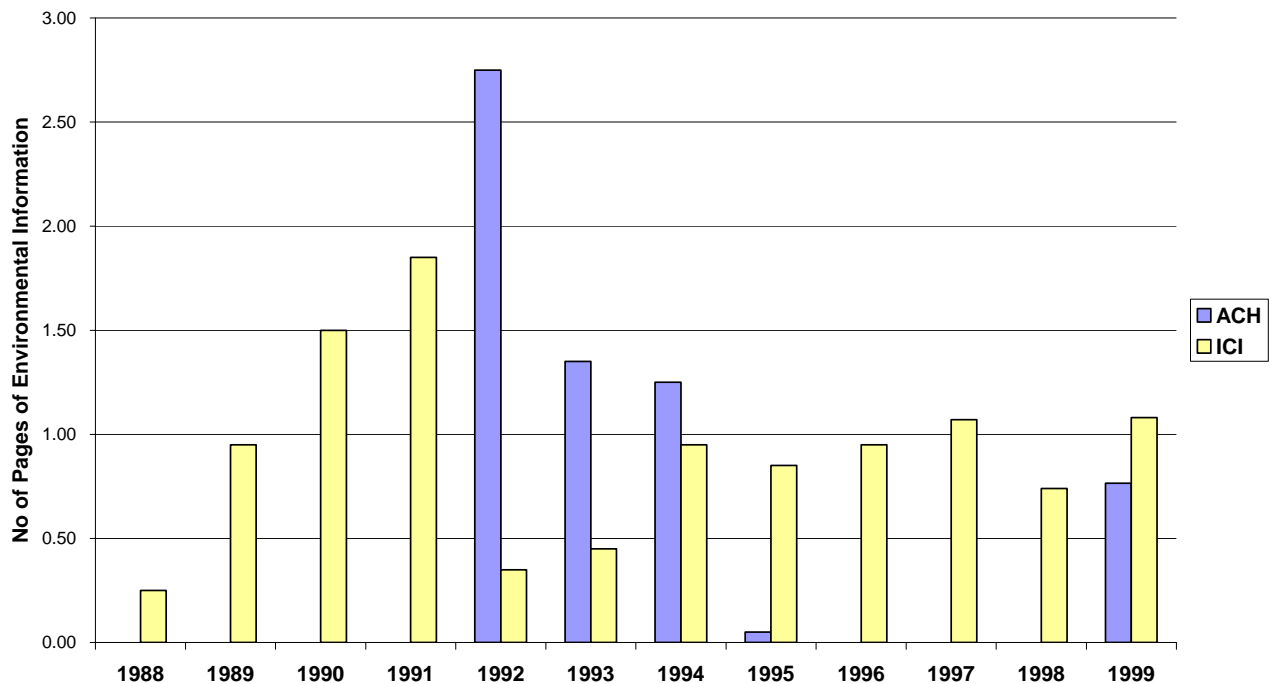
Paradoxically, and of particular importance to this study, de Villiers & van Staden (2006) found that, in certain circumstances, a reduction in annual report disclosures is also consistent with legitimacy theory. This finding is supported, from a theoretical standpoint by O'Donovan (2002) and in the results of empirical studies conducted by O'Dwyer in 2002, and of particular note, Deegan & Rankin's (1996) study which concluded that in the face of 'bad' environmental news, companies may reduce environmental disclosures but increase other CSR disclosures.

Deegan (2003) claimed that legitimacy theory was underdeveloped and therefore making specific predictions was difficult. This was confirmed in Mobus' (2005) study. Building on this lack of specificity the applicability and appropriateness of legitimacy theory, as part of a pluralist approach to CSR disclosure studies, has at least two areas for further investigation and development and these lead to the objectives of this study. The first is to corroborate (or not) prior research which has found that significant environmental issues/events that are company and/or industry-specific are linked to changes in the amount of environmental disclosures in the annual report. The second is to evaluate the information content of environmental and other CSR disclosures in those same annual reports and explore ways in which they may be linked to CSR disclosure strategies. It is the second objective which contributes most to the body of knowledge in that there has been little or no research undertaken to date on the specific CSR messages that companies are trying to communicate (Gray et al, 1995) and this has especially has been a limitation in legitimacy based studies (Parker, 2005).

The detailed content analysis method adopted in this study, which uses intensive analysis of the narrative text of annual reports over a 3-year period during which a significant environmental issue was at its zenith, allows for a more multi-layered understanding of CSR disclosure strategies than has previously been researched and this increases the possibility of contributing to the development of a number of theories discussed in the literature, including legitimacy theory.

The starting point for this historical investigation is the large fluctuation in the quantity of environmental disclosures in the annual reports of the Australian chemicals industry over the period 1991–1993 (Gibson & O'Donovan, 2005). These fluctuations were almost solely attributable to two companies in the industry, Australian Chemical Holdings Limited (ACH) and ICI Limited (ICI) and these disclosures are illustrated in Figure 1. These fluctuations occurred around the time of one of the largest, potentially life and environment threatening chemicals spill and associated fires in Australia's history, which occurred at Coode Island, near Melbourne in August 1991. This incident received widespread media coverage locally, nationally and internationally at the time and in the years subsequent to the incident.

Figure 1 - Annual Report Environmental Disclosures



The remainder of this paper is structured as follows. Next, a discussion on legitimacy and legitimacy theory as it relates to CSR reporting in this study is provided, followed by a description and justification of the research design and method adopted. This is followed by an historical background of Coode Island and the companies investigated in the study. An analysis of the information content of the relevant annual report disclosures is provided and this is linked to the categories of disclosure that might be expected using a legitimacy theory framework. In the remaining sections, a discussion of the findings and opportunities for further research are included, followed by concluding observations.

## Legitimacy Theory and CSR Reporting

The concept of legitimacy has its roots in many areas. According to Rosen (1979), the term “legitimacy” is coined from the classical Latin “*legitimus*”, meaning

according to law. Investigation of the writings on legitimacy indicate that the law referred to is not restricted to the development of laws to be enforced by a legal system, but also the social laws under which moral and ethical behaviour are judged. The acceptance of established social norms and values is also consistent with often-used applications of the term, legitimate. For example, Sutton (1993) suggests that “legitimacy theory” originated in the philosophy and law of politics in the Middle Ages. Since then it has acted as a measure for the right and wrong uses of power.

The development of theoretical frameworks in relation to legitimacy appears to have its origins in sociology. German sociologist Max Weber’s works, published at the beginning of the twentieth century on the concept of legitimacy, have been largely accepted and are viewed as seminal in the development of theories relating to legitimacy in the social sciences. Weber (1966) pointed out that not only do most forms of power strive for legitimation, but also complete political and social systems require legitimation to forestall crisis and degeneration. Contemporary social science definitions of legitimacy are based on Weber’s ideas that stress the tendency of political power to seek justification, especially in the eyes of the ruled.

A desire to be ‘legitimate’ is applicable to any form of organization where the organization has power and authority over others and there is a chance that the power and authority could become precarious, and this is especially important to the corporate entity. Corporate management (the power holder) have the use of resources and decision-making powers while stakeholders (the groups over which power is exercised) may exercise a right to approve (or disapprove) power in various



ways. It has been identified that corporate entities rely upon approval from at least two distinct groups of stakeholders (Clarkson, 1995, Donaldson & Preston, 1995).

The primary groups of stakeholders companies rely on are their resource providers, including shareholders, employees, financiers and customers. The other, less homogeneous, group is society, which a company relies upon for goodwill and approval in order for it to continue to operate to achieve its goals. It is the essence of the relationship between the company and its stakeholders that ensconces legitimacy. It is the way companies manage this relationship that is the fundamental premise underpinning legitimacy theory and disclosure strategies as it is applied in this investigation.

It has been argued that the inclusion of voluntary information in the annual report can be, and is, used by managers to send specific signals and messages to the public (Salancik & Meindl, 1984). It has also been asserted that the inclusion of information in the corporate annual report is used to persuade readers to accept managements' view of society (Amernic, 1992) and that annual reports are both reflective and constitutive of a wider set of societal values (Dyball, 1998). Hines (1988) indicated that regardless of the truth or accuracy of what is included in annual reports, it does have an effect on what becomes 'real' for the readers of the reports. Neu et al's (1998) research into environmental disclosures supported the assertion that annual reports are as much about managing public impressions and public image (Preston et al, 1996) as they are about disclosing financial information to financial markets. Research into CSR reporting suggests that companies can attempt to protect their legitimacy by using the corporate annual report to disclose voluntary information

about their social and environmental activities (de Villiers & van Staden, 2006; O'Donovan, 2002; Lindblom, 1994; Mastrodanas & Strife, 1993; Nasi et al, 1993). Moreover, these disclosures have been used strategically, as a legitimation tactic, in response to issues or events identified as posing a possible threat to, at best, an organization's reputation, or at worst, its very existence (Deegan et al, 2000; Deegan & Rankin, 1996; Patten, 1992; Wood, 1991). The predominant response is to increase disclosures but it is also possible that companies will wish to avoid the issue/event and this may lead to less disclosure. This reductionist view is consistent with a number of 'avoidance' strategies discussed by Ashforth & Gibbs (1990) and later tested in a disclosure context by O'Donovan (2002).

Views supportive of this have been espoused by Deegan (2002) who indicated that disclosures will be limited if management are not concerned about the issue. Neu et al (1998) agreed when they wrote; "*environmental disclosures are directed at important and supportive relevant publics, not at peripheral and critical publics*", (p. 272) and Oliver (1991) indicated avoidance tactics such as ceremonial conformity and restricted access to information of the company's practices are often the extent of a company's response.

Predicated on these views, de Villiers & van Staden (2006) found in their study of 140 annual reports of South African companies that in the face of prospective legitimacy threats, some companies reduced the amount of specific environmental disclosures relative to the amount of what they termed general environmental disclosures. They concluded that this reduction in disclosures is consistent with a legitimacy theory approach.

## **Method and Research Design**

As with many legitimacy studies in CSR (Blaccionierre & Patten, 1994; Davidson, 1991) the occurrence of a significant event having the potential to affect a company's reputation and survival is the catalyst for this study. In this study, the event was the Coode Island chemical explosion, fire and subsequent aftermath. The primary sources of data in this historical study are the annual reports of two companies in the Australian chemicals industry, Australian Chemical Holdings Ltd (ACH) and ICI Ltd (ICI) covering the years 1991-1993. The narrative text in these reports was systematically analysed independently by two researchers and subsequently classified and categorized into one (or more) of six categories as the categories are not necessarily mutually exclusive. The two researchers discussed any inconsistencies found during the categorization and agreement was reached as to the best fit. These categories, presented in Table 1, are a synthesis of the work of numerous researchers, who identified and labeled the disclosure responses that a company might be expected to make in response to a 'crisis' which threatens its legitimacy (O'Donovan, 2000; Elsbach, 1994, Lindblom, 1994; Elsbach & Sutton, 1992; Ashforth & Gibbs, 1990; Marcus & Goodman, 1991; Sutton & Callahan, 1987; Salancik & Meindl, 1984; Staw et al, 1983).

<b>Table 1 - Legitimation Disclosure Strategies</b>	
<b>Strategy</b>	<b>Explanation</b>
Acknowledge	The company mentions the incident in the annual report and this in itself is the company signaling the importance of the incident to the company and its stakeholders. It also indicates the company is taking some responsibility for being linked to the incident/event. The acknowledgement may be innocuous and not an admission of fault or taking responsibility. Including more environmental information than previously but not mentioning the issue could be considered symbolic acknowledgement.
Avoid	This tactic is consistent with a deliberate attempt to avoid the issue or event. There may be no direct reference to the issue /event where a company thinks it is strong enough to withstand protests. It may also manifest in a reduction in environmental disclosures generally in order to separate the company from the topic of the environment. This could be designed to keep both the specific issue and the general issue of the environment off the agenda for the company, a decoupling effect.
Alter social values	Aimed at educating and informing the public. This suggests that the company believes either the audience really does not understand the issue and the company needs to explain how things really are, or that the company has an opportunity to communicate its point of view on the issue in a cogent manner. It may therefore specifically refer to the issue/event. For example, research conducted by Sutton & Callahan (1987) found that in communicating to their audiences about the true nature of filing for protection under Chapter 11 of the Federal bankruptcy code, a number of managers opted to give the impression that the audience misunderstood the real meaning of bankrupt. The managers also claimed that the circumstances that led to the firm being declared bankrupt were unusual and unique. This type of 'general educating' may also take a macro form where the company may not mention a specific issue/event but in a more general manner talk about what environmental issues are important (e.g. up until recently refuting the science of climate change would come under this category).
Alter expectations of a company's performance	A type of disclosure taking the form of a plea from the company for society not to expect "too much" from the company. A disclosure reinforcing that the main reasons for the company's existence are not social or environmental would fit in with this approach.
Alter perceptions of a company's performance	Annual report disclosures of this type may distract attention from the issue or event by identifying with legitimate symbols or institutions in relation to the environmental and social performance of the company (e.g. philanthropy, community engagement). A disclosure reinforcing legitimate institutions' support of the company in relation to the specific issue or event is also a possibility here (e.g., the local council said we did not break any laws). Purposes in using these tactics can range from deliberately exploitative to more matter-of-fact representations of institutional conformity. The key in the adoption of this tactic is to portray the corporation in a positive light by one of two means: first, direct reference to positive links between the corporation and the broader issue in question; and second, by concentrating and communicating other positive social messages the corporation may feel it is necessary to send.
Conform	Accommodative signals, such as accepting responsibility, admitting problems exist, statements of intent to make restitution, apologies and expressions of guilt, remorse and shame are considered to be, in part at least, an attempt to signify conforming. Indicates, at least in a symbolic manner, that a company's response to an issue or event is consistent with its view of what it believes its stakeholder expects. A disclosure of this type indicates that the company 'intends' to change its current practices (e.g. Companies will assist in any investigations into the incident and introduce stricter safety measures straight away in addition to implementing any recommendations arising out of forthcoming independent reviews)

It is important to note that the disclosure responses in this study are classified and categorized as linked with a 'crisis' which required strategies to repair legitimacy. It is clear from the research that, while there may be some overlap, disclosure responses and tactics used to gain and maintain legitimacy are different from those designed to repair legitimacy (O'Donovan, 2002; Suchman, 1995; Oliver, 1991). Moreover, despite the Coode Island incident not being linked to any specific company, there is no doubt from the attention the incident received in the public arena, at and subsequent to the time of the incident that the chemicals' industry reputation was at risk. All companies in the chemicals industry would have been very aware of the threat this posed.

## **The Coode Island Incident - Background**

Coode Island, an island suburb west of Melbourne created by the construction of a shipping canal in 1886, has had a variety of uses, including animal quarantine, a sanatorium for victims of bubonic plague, and, from the 1920s, a factory and aerodrome. The area was first used for the storage of petrochemicals in 1960, and is now Victoria's major petrochemical storage facility. There is a documented history, beginning in 1980, of chemical leaks and spills at the site (HAZMAG, 1993), but on 21 August 1991 an explosion caused by lightning burned 8.5 million litres of chemicals, resulting in a toxic smoke cloud over the city and residential suburbs.

The fires lasted for two days:

*"On the first day the Westgate Bridge, Footscray Market and Dynon Road were closed as a black cloud drifted over Melbourne. Local power was also shut down.*

*People were evacuated to nearby Western Oval. Residents were advised to stay inside and keep windows and doors closed. By 4.00 pm, the Metropolitan Fire Brigade was advising that a toxic cloud was*

*heading towards the eastern suburbs of Hawthorn and Kew. Swanston and Appleton Docks were evacuated.*

*By 5.00 pm office workers in the city were being advised to stay inside and turn off air conditioners as the cloud drifted towards Frankston, over 30 kilometres away.” (Guardian, 1999, p.1)*

Newspaper headlines from the biggest selling daily newspaper in Victoria at the time of the explosion and fire, *The Herald Sun* provided a graphic summary of the events:

Toxic Blast – City Alert (Editorial, 1991)

Chemical Inferno (Dixon et al, 1991)

Standing at the Gateway to Hell (Brundrett, 1991)

Trapped While the Island Burns (Vujevic & Lawrence, 1991)

An Island of Poison (Pinkney, 1991)

Repercussions of the explosion are still continuing, with the *Herald Sun* reporting in 2006 that up to 15 firefighters who fought the blaze were suffering from cancer and lung disease, and that four others had taken their own lives. Further, *The Age* (Editorial, February 2005) has reported that the Victorian government has stopped office development on the Maribyrnong River close to Coode Island and is considering a port environs plan with buffers to avoid conflicts in land use. The *Age* Editorial suggested that this was an implicit acknowledgement of potential danger still posed by the facility at Coode Island. A general manager at the facility was reported as saying in 2001 that ideally the chemical store should have a five-kilometre buffer between it and the nearest housing. However, Coode Island is only 500 metres from the nearest house, and 4 kilometres from Melbourne’s Central Business District (HAZMAG, 2007).

It can be seen, therefore, that the Coode Island explosion and fire was a very significant industrial event in Victoria's history. Its repercussions, and discussions in relation to relocating the facility, are still continuing. One of the tenets of legitimacy theory is that an event must be sufficiently significant in order for companies to adopt a legitimacy strategy, at the time of the event and over time. It is clear from the above reports that the Coode Island incident had significant effects, both immediate and long-term, for the chemicals industry and the surrounding communities. For this reason, legitimizing activities in response to this event might be expected from companies in the chemicals industry.

At the time of the Coode Island explosion, the two major local companies in the Australian chemicals industry were ACH and ICI, later Orica Limited. A third company forming the ASX chemicals index was Gibson Chemicals, which consistently provided very little environmental information in its annual report over the period 1983-2003 (Gibson & O'Donovan, 2005). A fourth company, Commonwealth Industrial Gases, had been delisted by 1991. Thus only two companies, ACH and ICI, had the potential to cause the "spike" in environmental information observed in 1992.

As illustrated in Figure 1 however, when the individual annual reports of these two companies are examined, it becomes apparent that most of the increased environmental reporting in 1992 was attributable to ACH, whilst ICI significantly reduced its level of reporting in 1992 compared with 1991. This is particularly interesting in light of the fact that ICI was identified as a company with a large amount of chemicals stored at the Coode Island site (Chemlink, 1995). To reiterate,

one purpose of this exploratory case study is to analyse the annual reports of these two companies around the time of the fire, to investigate their apparently contrary reporting reactions, and to assess whether their responses can be explained within the legitimacy theory framework.

The Australian Accounting Standards AASB 1002 (later AASB 110) and AAS 8, which required the reporting of any events occurring after the reporting date which might have an effect on the operations or financial performance of an organization, were not introduced until 1997, and were operative from 30 June 1998 (AASB, 1997). Their introduction was therefore too late to require reporting related to the Coode Island incident, so it can be concluded that any discovered changes in reporting were not the result of regulatory compliance.

### **A Case of Two Companies: ACH Ltd and ICI Ltd**

A.C. Hatrick, an importer of chemicals for the surface coatings industry, formed ACH in 1917 and, by 1992; it was a publicly listed company with earnings of \$8.1 million on turnover of \$146 million. The company produces synthetic resins, emulsion polymers for the paint and surface coatings industries, and materials for fiberglass-reinforced plastics. Fifteen per cent of the company's revenue was earned in that year from the supply of ingredients to the paper industry. In relation to environmental reporting, the 1992 annual report contained the statement that "the strong emphasis on environmental and lifestyles issues apparent in these pages is a key feature of all ACH business development programs" (ACH, 1992, p.2).



ICI described itself in its 1992 report as the leading Australian company in the industrial chemicals, plastics, paints, commercial explosives and fertilizer markets. The company's operating profit after tax was over \$91 million, on sales of \$2.77 billion. The company provides a list of significant events during the year at the beginning of each annual report, but the explosion at Coode Island was not included in this section, either in 1991 (which did mention closure of the Laverton (Vic) plant) or in 1992.

The quantity of environmental information and total CSR information provided by the two companies from 1991-1993 is shown in Table 2.

<b>Table 2 – Environmental and CSR Disclosures 1991-1993</b>			
<b>Company</b>	<b>Year</b>	<b>Environmental Information only</b>	<b>All CSR Information (including environmental information)</b>
<b>ACH</b>	<b>1991</b>	0.00 pages	0.00 pages
	<b>1992</b>	2.75 pages	2.75 pages
	<b>1993</b>	1.35 pages	1.75 pages
<b>ICI</b>	<b>1991</b>	1.85 pages	4.80 pages
	<b>1992</b>	0.35 pages	3.25 pages
	<b>1993</b>	0.45 pages	3.30 pages

The provision of information in the annual report in relation to a particular incident can be a timing decision, depending on how close the occurrence is to reporting date. If the incident is very close to year-end, the content of the annual report may already have been largely set, and by the time of the following year's report, the incident may be considered historical as not to require reporting. There is thus a time horizon

within which a company may consider whether a response to an incident is required. As the Coode Island incident occurred in August 1991, and the financial year of ACH ended on 30 September 1991, any flow-on effects of the incident, or information intended to repair legitimacy, could have been included in that year's report. However, it is possible that the report's content had been largely decided by that time, and this could be a reason why reporting of environmental information did not occur in that year (see Table 2).

As the 1991 annual report of ICI was signed off on 29 November 1991, it is also possible that this company, following a legitimacy theory argument, could have provided additional environmental information within this report. However, it can be seen from Figure 1 and Table 2 that this also did not occur, and in fact, the environmental information provided in annual reports industry-wide for 1991 was below that for the previous year. Nevertheless, it is important to examine exactly what was reported in 1991 to clarify if possible the reasons for the observed "information spike" occurring in the following year, 1992.

### **ACH – Analysing the information content of the annual reports**

An analysis of the information provided in the 1991 annual report of ACH revealed that the company operated in only one industry segment, chemicals (ACH, 1991 p.14) and that the year had been a difficult one for manufacturing in Australia (p.10). The report included a photograph and description of a new distribution centre in Melbourne, noting that it included the "very latest in distribution technology and safe-storage warehousing" (p.2), and the directors' report (p.15) stated that since reporting date no circumstances had arisen which may significantly affect the

operations of the group in subsequent financial years. It would appear from this that no flow-on consequences from Coode Island, such as increased regulation or significantly, increased insurance premiums were anticipated, and this is perhaps not unexpected, as the company did not operate from that facility.

Whilst no environmental information was provided by ACH in 1991, this changed in 1992, with the introduction into the annual report of a full-page new section entitled “Environmental Protection” (p.4) and a further full page entitled “Recycling and our Paper Industries (p.5). In addition to these sections, the report also included a photograph of a pilot plant for producing new polymers for environmentally friendly paint, followed by a descriptive paragraph on how these assist in reducing “emissions of ‘volatile organics’ such as solvents” and “contribute to improved air quality” (p.2). Further, we are told, “not only have the paint systems changed, but ACH has also made dramatic reductions in the levels of volatile organic compounds in their emulsion polymers” (p.3). In relation to this, the company again emphasized its “stringent environmentally friendly standards”, which were “being progressively tightened as technological advances permit” (p.3).

Within the *Environmental Protection* section (p.4) is information about the company’s fibreglass tanks, aimed at solving the problem of “leaking steel petrol tanks (which) are the largest single source of pollution of ground water, and (which) have caused serious environmental problems”. These fibreglass tanks ensure that “the environment is spared a major source of stress”. The explosion of petrol tanks was one of the major problems experienced during the Coode Island fire.

ACH's *Recycling* section (p.5) includes information that 45% of papermaking fibre in Australia comes from recycling, and emphasizes ACH's commitment to the "supply and further development of environmentally friendly functional additives and ingredients for the paper industry". The group's leadership role is also emphasized in the "development and application of alkaline and near-neutral systems ... (that) have enabled paper manufacturers to reduce effluent and use higher amounts of recycled fibre". As discussed previously, legitimacy theory suggests that "good news" environmental information is often provided in this way if an organization perceives that its legitimacy is threatened, as may well be the case for a chemicals company following a large industry disaster, even one in which the organization was not directly involved.

Economically, as for 1991, the financial year 1992 was reported as a "difficult one" and a write-down of \$5.2 million in the carrying value of properties occurred. The notes to the accounts provide additional information that independent valuations indicated a further reduction in value of \$1.5 million, described by the directors as reflecting, "short-term distressed market conditions" (p.13) rather than the long-term benefits of use of the properties. This total reduction in value of \$6.7 million represents 18% of the remaining net value for land and buildings of \$36.2 million, but no explanation is provided for the reduction. However, as the assessment was based on discounted cash flows to be generated from the use of the assets, it may indicate reduced confidence in the company's future profitability. Following two 'difficult years' and such a large asset write-down, the company could well be providing "bad news" financial information in an attempt to avoid proposed government regulation of the chemicals industry, and the anticipated increased costs

that such regulation may be expected to impose. This would be consistent with legitimacy theory and political economy arguments (Adams, et al, 1998).

Attention is drawn in ACH's 1992 report to the fact that "the strong emphasis on environmental and lifestyle issues apparent in (this report) is a key feature of all ACH business development programmes" (p.2). It is interesting, therefore, to note in hindsight that in the annual report of the following year (ACH, 1993) the amount of environmental information provided was more than halved, suggesting that the 'strong emphasis' may well have been a short-lived legitimacy response.

As can be seen from Table 2, the quantity of environmental information provided in ACH's 1993 report fell to less than half of the 1992 level. In 1993, improved trading conditions reflected "an upturn in the economies of Australia and New Zealand" (page 2). Legitimacy theory could lead us to expect reduced emphasis on environmental information when economic performance is good, as a basic tenet of the theory is that environmental information may be provided as a 'good news' item to distract stakeholder attention from poor trading performance, and is therefore no longer required following an economic upturn.

Although the 1993 report included a whole page entitled *Sound Environmental Management* (page 5), this section related largely to being "good neighbours" when investing in facilities and equipment, and the on-site containment of wastewater. Most of the environmental information in the report related to the operations of customers using ACH products, principally Amcor and North Broken Hill Peko, and there was no further mention of the high-safety, non-corrosive 'Enviro-tanks' aimed

at replacing “leaking steel petrol tanks” which were a full-page feature of the 1992 report. The clear message in 1993 was that the company felt secure in its economic performance, its strong customer contracts, and its longevity. In other words, it perceived no need to establish or repair its legitimacy, and therefore the previous higher level of CSR reporting was not required. This is consistent with a legitimacy strategy of altering public perceptions of a company’s performance (See Table 1).

### **ICI – Analysing the information content of the annual reports**

ICI’s 1991 Annual Report (ICI, 1991), 60 pages long, was 3.5 times the length of ACH’s report for the same year, and contained 1.85 pages of environmental information. Environmental responsibility was not mentioned in the company’s vision statement, and the company’s stated purpose was the generation of attractive financial returns and secure economic growth, but the “safety and health of ... the community and environment” was listed amongst its objectives (p.1). As for ACH, the year 1991 was also identified by ICI as “a difficult year” (page 6), although working capital reduction and asset divestments were credited with enabling the company to enter “the new financial year (1992) a stronger company” as a result of these initiatives. Environmental information was provided in relation to such issues as reducing mercury levels in chlorine effluent, eliminating polymer spillage into drains, recycling of acids from tanker washouts, and the sponsoring of Earthwatch expeditions

Whilst ICI was a large user of the storage facilities at the time of the Coode Island explosion, there was no mention of the incident in the 1991 report, even though there was mention of the closure of the Laverton plant (close to Coode Island), where “the

necessary environmental upgrades were not economically viable” (page 14). It was also reported, “ICI’s warehouses have been upgraded to meet all new hazardous goods regulations”. Further, we were told that the purchase of a warehouse in Laverton “provides one of the largest and safest chemical storage facilities in Melbourne’s western suburbs”, and that the industrial chemicals division operates out of Yarraville, Victoria. Both of these are neighbouring suburbs to Coode Island, and this reporting of positive local activities, coupled with non-reporting of the incident, is consistent with legitimacy arguments that good news will be provided when legitimacy is perceived to be threatened. This could also be an attempt to provide accommodative signals, acknowledging that problems exist, and attempting to conform to public expectations.

In relation to financial effects of the accident, ICI reported no contingent liabilities that may be related to the incident, but “deferred manufacturing expenses and other costs” increased by more than 250% in 1991 to \$54.2 million, and provision for stock losses increased from \$600,000 in 1990 to \$4.7 million in 1991. Whilst these are effects that might be expected following such a significant event, there was no information in the report that would enable them to be directly linked to the Coode Island disaster. It is mandatory that this information be provided in the financial statements, but the fact that there was insufficient information to enable users to identify the cause of these costs and provisions may indicate that the company perceives that its legitimacy would be threatened if it did so, particularly if they were related to an explosion and toxic fire which had threatened local communities.

Of particular interest in the one-page environment report is that:

*ICI is a signatory to the Australian Chemical Industry Council's "Responsible Care" program for ethical environmental conduct and to the International Chamber of Commerce's worldwide environmental charter. The company also represented the Australian Manufacturing Council on the Federal Government's Ecologically Sustainable Manufacturing working group" (page 14).*

ICI thus had an industry leadership role in self-regulation, and one of the propositions of legitimacy theory and political economy theory as explained by Adams et al (1998) is that companies will seek to maintain their legitimacy in order to avoid external regulatory impositions. At the time of the Coode Island incident, there was pressure on government to regulate the chemicals industry, which at that time remained self-regulated. Consistent with the theory, therefore, it would not have been in ICI's interest to draw attention to the fact that it was a large user of the Coode island facilities, and this could explain why there was no mention of the incident whatever in the company's 1991 annual report. Following such a huge disaster for the petrochemical industry, it is interesting to note a paragraph in ICI's report drawing attention to the company's response to "industry and consumer concerns about plastics" (page 23), and the company's work in recycling and "pro-active education projects". This could be seen as an attempt to distract attention from potential disaster to a legitimate 'good news' area in aiming to create positive perceptions of the company's performance.

Consistent with the limb of legitimacy theory that companies may reduce the amount of information in the face of a legitimacy-threatening event, the quantity of environmental information provided in ICI's 1992 annual report fell to 19% of the 1991 level. The 1992 report of 64 pages contained only 0.35 pages of environmental information, but additional CSR information was clearly aimed at



positioning the company legitimately within its community. The Chairman described “very significant changes which are taking place in community attitudes in respect of the need for Australian industry to become internationally competitive” and praised the “constructive participation”, “support” and “collaboration” of employees, trade union leaders, customers and suppliers, and “enlightened attitudes and practices” (p.4). This description of a supportive community was seemingly at odds with the large amounts of news footage of the Coode Island site showing very vocal local community protests about the facility and its potential impact on the surrounding community.

The Managing Director’s Report reviewed some of the negative aspects of performance, including that the company had “enjoyed little relief from the difficult operating environment”, and singling out the adverse effects of the “protracted domestic recession, low international chemical prices and dumped imports” (p.10). Also mentioned was the closure of the packaged explosives plant at Deer Park, Victoria, after 120 years of continuous operation, a loss of \$12 million relating to the termination of a sales contract, and “flat sales volumes and prices under constant pressure from imports”, (p.12). This is consistent with a legitimacy strategy of altering expectations of a company’s performance, as a company may find it more difficult to expend resources on environmental protection if financial viability is threatened. The Managing Director’s review also focused on some of the positive aspects of the business, including a dedication to “improving the productivity and profitability” (p.14) and a commitment to total quality management. Progress in environmental performance was also reported at plants in NSW and WA, and employee safety was reported as the best on record with fewer medically treated

injuries than in the previous year. The western suburbs of Melbourne were a particular focus of good news stories, including open days at the Yarraville, Deer Park and Ascot Vale plants, and sponsorship of the Footscray Football Club (including a full-page colour photograph). The football sponsorship was credited with bringing the club from “near extinction in 1989 to the AFL semi-finals in 1992” and was highlighted as “a uniting force among ICI employees and local plant communities in Melbourne’s western suburbs” (p.17). These reported activities are all consistent with attempts to repair legitimacy within a geographical area previously affected by a harmful industrial incident, by altering perceptions of a company’s support for the local community.

As can be seen in Table 2, environmental information in ICI’s annual report for 1993 increased slightly, but to less than half a page of the 64-page report. This report again emphasized that the company operates “to the highest standards of ethical behaviour and honesty and with full regard for the safety and health of employees, customers and the environment” (p.10). The rate of employee injury showed a further reduction from the previous year. In this report, the only news in relation to the western suburbs of Melbourne was good, in that Deer Park and Yarraville were both successful in reducing effluent and the Yarraville plant won the Corporate Citizen of the year award presented by Footscray City Council (p.12). It also noted that restructuring at the Yarraville site was moving to self-managed work teams, giving the impression that decisions made at that plant were now in the control of the workers from the local community. This very limited reporting was occurring within an external environment of constant calls for the relocation of the Coode Island facilities. This could indicate that the company was unwilling to attract attention to it

as being linked to perceived illegitimate activities. The impression from this low profile reporting is that the company, with a very long history of operations at several locations in the western suburbs, was now hardly operating there at all. Its support for the football club was also no longer mentioned.

In 1993, the company's accounting policies included for the first time a note on environmental expenses (p.41) which simply said, "provisions are carried for known environmental liabilities where it is probable that a future event will confirm a loss". This note establishes a certain level of legitimacy by indicating that if there were any such expenses or liabilities they would be reported. As there was then no identification of any of them in the financial reports, readers could assume that there were no environmental expenses in that year, conveying an impression of an unblemished environmental record.

In analyzing the information content of the annual reports of these two companies, we find information provision consistent with the two major responses to a legitimacy-threatening incident, increased reporting from ACH and reduced reporting from ICI. Neither company, however, refers to the Coode Island incident directly, even though its impact was sufficient to affect the legitimacy of the complete Australian chemicals industry.

## **Linking Legitimation Strategies and Disclosure Responses - The Coode Island Incident**

This section provides a synthesis of the information content of the CSR and environmental disclosures in the annual reports described in detail in the previous

section by classifying the content against the six-legitimation disclosure strategies developed earlier in the paper. This synthesis is provided in Table 3.

A few important points should be noted. There was no disclosure that clearly fitted into the category of altering social values over the 3 years for ACH. This is not surprising if one considers that in the time of a 'crisis' it would not be wise of companies to try to lecture its stakeholders into convincing them that their values are incorrect. One would expect this strategy would be used more if a company was trying to gain and maintain legitimacy (O'Donovan, 2002) rather than repair lost legitimacy. Similarly only one disclosure for ICI was classified in this category and even then, the tenor of this disclosure could have seen it classified in the altering social expectations category as well as an attempt to alter social values.

There was no direct acknowledgement of the Coode Island incident in any of the reports, which was somewhat surprising, especially given the magnitude of the incident, and the clear results from prior research that incidents of this magnitude usually lead to increased disclosure by companies in the industry effected (Patten, 1992). That being said it could be that the two companies in the study felt distanced enough from the incident to resist mentioning it and forever associating themselves with the explosion and fire.

Table 3 – Classification of Disclosure Responses Against Legitimation Strategies			
Strategy	Year	ACH	ICI
Acknowledge	All	Incident not acknowledged in any of 1991, 1992 or 1993 annual reports, but ACH was not a user of Coode Island facilities. Large increase in environmental information provided in 1992, reducing in 1993.	Incident not acknowledged in any of 1991, 1992 or 1993 reports, even though ICI was a user of the Coode Island facilities.
Avoid	1991	No mention of incident and no CSR or environmental information provided.	No mention of incident.
	1992	No mention of incident.	No mention of incident. Environmental information reduced to 19% of 1991 level. Total CSR information also reduced by 32%.
	1993	No mention of incident and environmental disclosures half of 1992 level.	No mention of incident. Environmental information less than half a page of 64-page report. Reduced reporting of activities in western suburbs of Melbourne.
Alter social values	1991		
	1992		The linking of agreement of the company's policies with groups such as trade unions, community groups, customers and suppliers may indicate an attempt to influence others that their values must be wrong as the company has these groups supporting it.
	1993		
Alter expectations	1991	Year was a very difficult one for manufacturing in Australia. Drive was for improved efficiency, with no mention of environmental performance goals.	Identified as "a difficult year", but restructure undertaken to make ICI "a stronger company". Company vision is to secure attractive financial returns and secure economic growth, whilst achieving safety and health of the community and environment.
	1992	Financial year was a "difficult one", but environmental performance was introduced as a company goal.	"Little relief from difficult operating environment", "protracted domestic recession, low international chemical prices and dumped imports".
	1993	Improved trading conditions reported, and these were accompanied by reduced focus on environmental and CSR issues within the annual report.	
Alter perceptions	1991	New distribution centre in Melbourne with "very latest in distribution technology and safe-storage warehousing	Earthwatch sponsorship highlighted. Company working on "proactive educational projects" and "addressing industry and consumer concerns about plastics".
	1992	"Strong emphasis on environmental and lifestyle issues is key feature of all ACH business development programs". Introduced new full-page section on <i>Environmental Protection</i>	Reported commitment to total quality management. Employee safety best on record. "Good news" reports focused on western suburbs of Melbourne. Big focus on ICI

Table 3 – Classification of Disclosure Responses Against Legitimation Strategies			
Strategy	Year	ACH	ICI
		and second full page on <i>Recycling</i> . Statements throughout report include: “reduce emissions”, “contribute to improved air quality”, reduced levels of volatile compounds”, and “stringent environmentally friendly standards”. Information on new tanks developed to solve problems of “leaking steel petrol tanks”.	support for Footscray Football Club (34% of total CSR information) enabling the club to rise from “near extinction in 1989 to the AFL semi-finals’.
	1993		Company describes itself as “operating to the highest standards of ethical behaviour and honesty and with full regard for the safety and health of employees, customers and the environment”. Note to accounts on “environmental expenses” did not indicate any provisions for environmental liabilities – perception is that there were none.
Conform	1991		An indirect accommodative signal may have been the closing of the nearby Laverton plant where “necessary environmental upgrades were not economically viable”. Reported “ICI’s warehouses have been upgraded to meet all new hazardous goods regulations”. Further, purchase of new warehouse “provides one of the largest and safest chemical storage facilities in Melbourne’s western suburbs”. Company is a signatory to Australian Industry Council’s “Responsible Care program”, and is representative on government’s Ecologically Sustainable Manufacturing Working Group.
	1992	The newly introduced environmental section (1 full page) is solely related to fuel storage tanks. Whilst such tanks were a major problem at Coode Island the report discusses the North American situation where “leaking steel petrol tanks are the largest single source of pollution” and “have caused serious environmental problems”. ACH are manufacturing fibreglass “Enviro tanks”, which spare the environment from “a major source of stress”.	Progress in environmental performance reported at NSW and WA plants.
	1993		Company reported reduced mercury levels, elimination of polymer spillage, acids recycling, Good news reported for western suburbs of Melbourne with plants reducing effluent and gaining awards.

## **Conclusion, limitations and opportunities for further research**

These findings add practical evidence in support of the theory that corporate reporting mechanisms, such as the annual report, will be used by companies when their legitimacy, or the legitimacy of the industry in which they operate, is threatened and this is consistent with the results of prior research, especially when linked to strategies to repair legitimacy (Suchman, 1995). Whilst no direct conclusions can be drawn in relation to the cause and effect of the changes in quantity and type of information provided by ACH and ICI, their environmental and CSR reporting practices around the time of the Coode Island disaster are consistent with the arguments of legitimacy theory. More importantly, this research adds to the general body of knowledge in relation to general motives behind CSR reporting and specifically the development of legitimacy theory. It does this by attempting to begin a relevant categorization of these disclosures and while no clear pattern has emerged from this study, the types of disclosure that might be expected in response to a legitimacy threat are identified.

There were some limitations in this study. The choice of six categories, while based on a rigorous analysis of the literature, created some classification dilemmas.

Others have developed many more categories (for example Ashforth & Gibbs, 1990; Oliver, 1991; Suchman, 1995) and it became evident throughout the analysis that further categories may have helped to overcome problems of disclosures being able to fit into more than one category. It may be the case, however, that even with more categories the types of disclosures could still overlap.

A further limitation also segues into opportunities for further research. The best way to further the objectives of this research in a CSR context would be as a participant observer embedded into a company over a period of time, and in particular one which was linked to a serious negative event or incident. In this setting the researcher would be in the best position to understand the motives for the types and information content of any disclosures. The practicality of being able to conduct this type of research is problematic and while detailed content analysis, as conducted in this study, does have its drawbacks, it does have the advantage of being 'doable' and the ex post nature of this study allows the researcher to access data from different sources, thus improving its validity.

The information spikes used as a catalyst for this historical study could be identified in other industries or indeed the chemicals industry at other times. For example, Gibson & O'Donovan (2005) found there was an even larger spike in the chemicals industry environmental disclosures from 2002 to 2003, without any obvious issue such as Coode Island possibly being a catalyst.

An interesting finding from this study and one that is clearly evidenced in ICI's 1991 and 1992 CSR disclosures is the extent to which other CSR disclosures are used to deflect attention from environmental issues. This may be explainable by the 'good news' offsetting 'bad news' argument, as Deegan & Rankin (1996) found but the information content highlighted in this study suggests that further research into whether decisions to disclose different elements and amounts of CSR (e.g. environment, product safety, employee welfare, community engagement, sponsorship, philanthropy) are correlated is warranted. This may be done, initially at



least, on a quantity basis, but more interestingly one wonders whether the aggregation of the different elements of CSR disclosures in prior research needs unpacking in order to further develop relevant theoretical frameworks. As Parker (2005) succinctly identified:

*“...as the accounting history community has gradually discovered, pluralism in theoretical lenses and methodologies applied to common research problems can yield incremental and accumulating insights that are enriched by both commonality and difference.” (p. 849)*

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## Endnotes

1. The term, triple bottom line (TBL), was developed by Elkington (1998) to signify that organisations should measure and be judged on economic (financial), social and environmental performance, rather than just the traditional 'one line' economic (financial) performance.
2. In this paper, CSR Reporting is inclusive of other terms used to describe this type of reporting including; social and environmental reporting, social and environmental accounting, sustainability reporting and social reporting.
3. Top 250 companies selected from Global Fortune 500.
4. Top 100 companies in 16 identified countries selected by revenue ranking based on a recognized national source.
5. Gibson & O'Donovan specifically studied environmental disclosures in annual reports for 41 companies across from eight industry groups using 752 reports in Australia over the period 1983-2003.
6. For a detailed analysis of these theoretical perspectives, see Gray et al (1995) and O'Donovan (1999).

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