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RISKS, RIGHTS AND SECRETS: PUBLIC ACCESS TO INFORMATION ON INDUSTRIAL MAJOR HAZARDS

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1. Introduction

Environmental risk regulation has over the past decade become a prominent feature of environmental policy and political controversy, raising issues which fundamentally question how representative democracies should operate (Otway and Thomas 1982). Institutions have been expected to be "more open, more thorough and more fair" both in their treatment of public concerns and in the presentation of their own arguments (O'Riordan 1985). Attention has in this respect been focussed on the operation of participatory mechanisms such as public inquiry procedures (Sieghart 1979, Wynne 1982, Purdue et al 1984), but also more recently on the question of public access to information. Public rights to information have been demanded on the grounds of practicality in coping with hazards, as well as those of principle in allowing participatory structures to effectively operate. For government and industry, access to information has thus become a further component of the struggle to maintain public confidence and credibility in the handling of environmental risk concerns.

Issues of public access to information are examined in this paper in the context of industrial major hazards; a risk concern recently and tragically brought to prominence by accidents at Seveso, Mexico City and Bhopal. Industrial major hazard has traditionally constituted one of the prime instances of "environmental secrecy" identified in the UK (Frankel

1984); under established policy it was not possible to find out the locations of major hazard sites acros the country as lists of such sites were held as confidential information by the regulatory authorities. This basic restriction limited public awareness of the distribution of hazardous sites, and obstructed public scrutiny of the regulatory process. However the past few years have seen an opening up of previously strictly controlled channels of information to the public through the partial recognition of public rights to information (lists of sites are now accessible), and a higher profile committment by industry to communication with the public. Changes in policy and attitude have been seen which are significant both in their own terms and in respect to broader open government and environmental secrecy debates in the UK (Chapman and Hunt 1987, Wilson 1984, Delbridge and Smith 1982). Similar developments have been seen for example in the US (Baram 1986) and across Europe through community wide legislation (Wynne 1987).

This paper charts the changes that have occured in the UK approach to public rights to information on major hazards (including the UK implementation of the "Seveso" Directive) within the context of recent debate, and analyses the methods and justifications of confidentiality under earlier policy. It will be argued that whilst more information is now being given to, or is available to the public, marking a significant change of policy by government and industry, clear limits to openness still exist. Information disclosure has also principally taken place within a context of reassurance and directed communication, rather than through a more fundamental right of access to official documentation.

Before examining the development UK policy and practice, issues surrounding the recognition of public rights to information on major

hazard industry are first discussed.

2. Major Hazards and Public Rights

The potential for damage in the event of the large scale sudden release of hazardous materials is ably demonstrated by the impact of accident events; at Bhopal between 2,000 and 10,000 deaths were caused by the release of toxic gas (Shrivastava 1987); at Mexico City more than 500 deaths resulted from a series of fires and explosions at a liquified gas storage facility (Chemical Engineer 1985). In the UK no offsite deaths have resulted from accident events although accidents have occured; at Flixborough in 1974 28 workers on site were killed and there was widespread damage in nearby villages (Department of Employment 1975); other more minor incidents for example at Salford and Stalybridge near Manchester, Woodkirk in Leeds and Thetford in Norfolk, have variously resulted in injury, damage to property, environmental contamination and large scale evacuation of nearby population.

Providing a measure of control over such hazard potential is not a simple matter. Risk regulation has to contend with the problems of handling uncertainty (Conrad 1980, Griffiths 1984), inadequacies in scientific knowledge (Johnston 1980), and assessing the acceptability of risks (Council for Science and Society 1977, Fischoff et al 1981). Even defining and identifying what constitutes a "major hazard" for the purposes of regulation has proved highly problematical (Marshall 1983). Regulatory intervention may take place at source, or offsite through locational control (land use planning) and emergency planning. Making decisions on regulatory strategies and matters relating to individual installations involves complex judgements weighing up uncertain risks against factors

such as job provision and economic benefit (Kunreuther and Linerooth 1982). As is the case with many potential threats to individual and collective safety, industrial risks may be alleviated and managed but not eliminated without drastic economic and social upheaval.

In this context arguments for public access to information on industrial major hazards and how they are being regulated and controlled take a particular form. The public constitutes on the one hand potential risk takers, and on the other, members of society on whose behalf decisions on risk regulation are taken and policies made. Public rights to information can therefore be asserted on the grounds of both principle and practicality. Three distinctions can usefully be made:

The Right to Know - this asserts as a moral principle, that individuals and communities have a right to information on industrial hazards which are imposed upon them, or to which they may expose themselves. This right has associated justifications in the concept of informed consent, or the right of individuals to make their own decisions over the acceptability of risks (Fischoff 1983,1985). A basic requirement for the right to know to be recognisd is that it is possible to identify the locations of major hazard sites. However industrial risks are diverse in nature and often hidden within varied industrial operations. Included amongst the 1500 or so offically identified hazardous sites in the UK are, as would be expected, the vast petrochemical complexes of Canvey Island, Ellesmere Port, Grangemouth and Teesside but also many smaller and less obviously hazardous sites such as urban based LPG storage and distribution centres, small speciality chemical plants, fertiliser storage warehouses and water treatment plants. Only through access to official lists can the hazard potential of such installations

be reliably recognised.

The Right to Cope - this has a more practical basis in stating that those at risk - those who have a "need " to know because they are under potential threat - have a right to be given information which will enable them to better cope with this risk; information which will enable them to take preventitive, avoidance or ameliorative actions. Examples of such information would include details of warning siren tones activated in the event of a major release, advice to take cover or to evacuate to specified meeting points and guidance on how the effects of toxic gas inhalation or explosive blast may be limited. The population at direct risk from major hazards may be very large, as whilst many sites are located at a distance from population concentrations (as was the Flixborough plant), others may be located within or adjacent to urban areas, including as many as ten thousand people within recognised hazard zones (Walker and Macgill 1985). It was shown at Bhopal that without appropriate pre-information people at risk in the event of accident may not react to warning sirens or make appropriate responses; many victims ran towards the plant and could have saved their lives by holding wet cloths over their mouths (Lihou 1985).

The Right to Participate - this asserts that the public have a right to become involved in the decision making process over technological risks (Nelkin 1977) and have rights to information which will enable them to do this. Again an associated justification lies in the argument for democratric and accountable acceptable risk decisions (Council for Science and Society op.cit., McGinty 1976). Macgill (1984) identifies a series of reasons for public participation in the planning phase of major hazards stressing the importance of safety being "seen" to be

achieved and the potential for not only "fairer" decisions but also "better" decisions to be made through bringing a wider range of opinion to bear. For such participation to be effective, access to information held by regulatory authorities and industry is necessary. Without access to information a severe constraint on the initial recognition of issues of concern, and on the ability to subsequently participate, may be added to the list of related problems of public involvement (time, expense).

Each of these rights raise different implications as to what constitutes adequate and appropriate public access to information. As a result there is no one practical conception of public rights. Differences arise in terms of: how much information is needed to be made accessible (site location or full hazard surveys); who it is made available to (the general public or just those directly at risk); who should make the information accessible and who pays costs (regulator or site operator); how information should be made accessible (actively given, or passively available). There is also a crucial distinction between "national" information and "local" information; the former relates to overall regulatory policies and criteria of inspection, safety assessment and hazard scrutiny. Local information is that concerned with specific sites, their hazard, the measures taken to control that hazard, the results of specific assessments and the means of handling accident events in that locality. Such distinctions will be important in later evaluation.

Public rights to major hazard information must come through the ability of individuals to have access to information held by or issued by the hazard producer or by regulatory bodies. In the UK information is held by several participants in the regulatory structure; the Health and Safety Executive, industry and local authorities. Figure 1 shows a simple model of information flows within and outside of this structure.

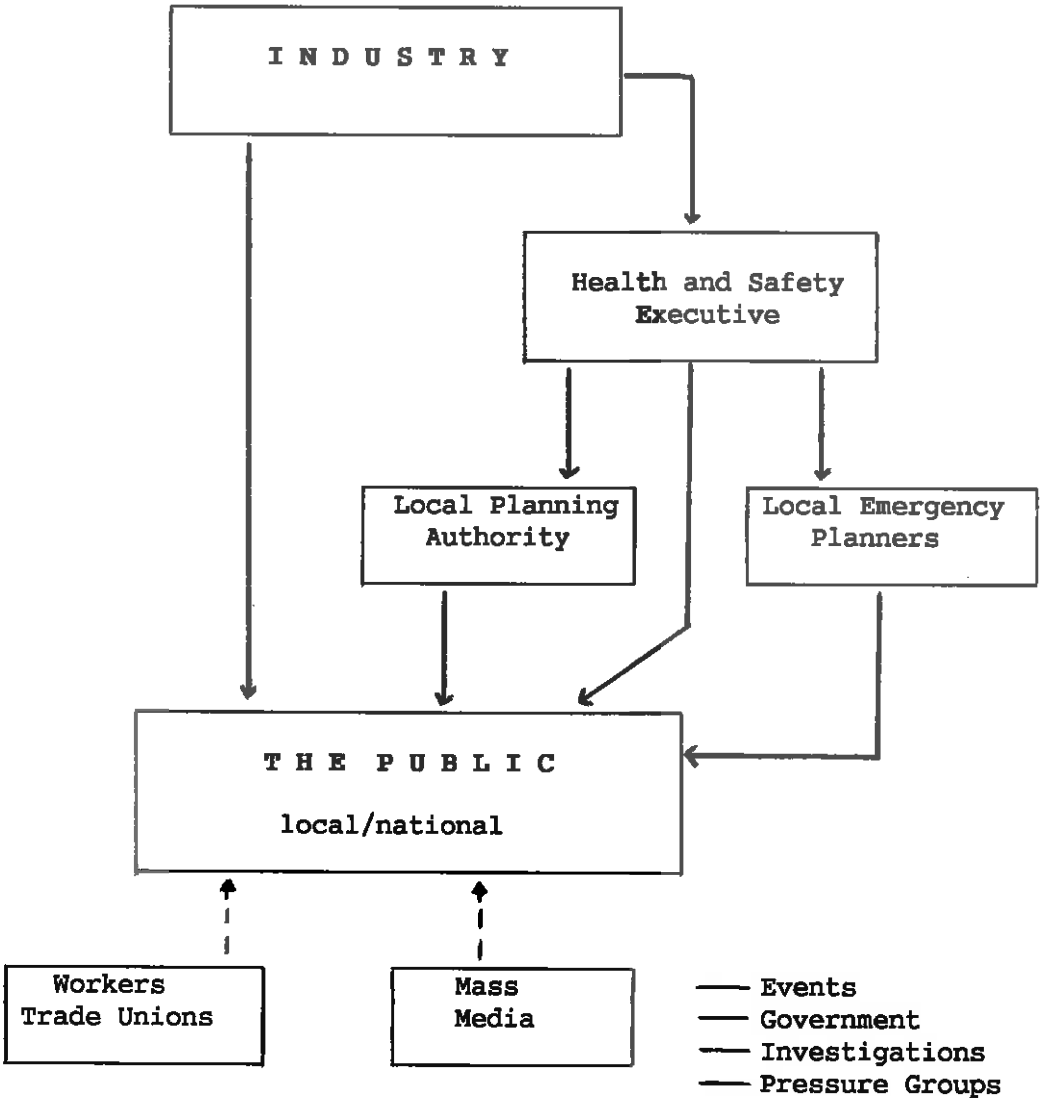

Figure 1: The major hazard information environment

(1) Health and Safety Executive - the HSE act as enforcers of the 1974 Health and Safety at Work Act, under which major hazards are principally regulated. In fulfilling their role they collect information from industry through site inspection and specific regulatory provisions and generate information through undertaking assessments and acting as expert advisers on hazard issues. They are therefore in a position to pass information to the public, or for documents they hold to be made accessible to the public. Policy within the health and safety at work field is determined by the Health and Safety Commission (HSC).

(2) Industry - as the creators of risks to the community industrial operators have the most comprehensive information available, and can pass this information on to the public either on their own instigation or under regulations directing them to do so.

(3) Local authorities - local government bodies are involved with major hazard regulation through their responsibilities for emergency planning and the control of land use. They are given information and advice by the HSE and by industry in order to carry out these responsibilities. Again they could be required to make information available or to allow public scrutiny of documents held.

Public rights to information must be achieved by access to one these sources. Less formal flows of information clearly also occur but cannot provide a right of access; two such flows are shown in figure 1, namely information passed on into the community by workers at major hazard plants, and media reports of incidents, controversies and pressure group activities. Such sources of information do though play a role in

sensitising public attitudes toward major hazards, and in potentially undermining official restrictions on information release (see Slovic 1987, Wilkins 1987 on risk communication in a wider context).

In order to examine the changes which have taken place in the recognition of public rights to information in the UK it is convenient to divide the discussion of policy into two periods; up until 1986, and 1986 onwards when policy developments were first put into practice.

3. Confidentiality: the established approach

During the period from 1972, when major hazards first became a object of specific regulatory attention, until 1986, information on major hazard industry was in general restricted from public access except at a general national level and in particular exceptional circumstances. Information availability was based upon a presumption of industrial and regulatory confidentiality, which served to prevent each of the three public rights identified in the last section from being recognised or effectively protected; a request to the HSE for information on major hazard installations in a particular area would have been turned down; no information was actively given to people living near to major hazard sites on what they should do in the event of an accident; new hazards could be introduced into an area with no realistic opportunity for public comment being available.

3.1 The means of information restriction

The means of restriction involved the control of information flow at each of the points of potential disclosure identified in figure 1. Three factors therefore served to maintain confidentiality, although exceptions to each general rule are also apparent:

1. **There was a restriction enforced by statute on the information which the principle regulatory authority, the HSE, could divulge, and no obligation on them to give anything but general information to the public on major hazard sites.**

   As well as being bound by the Official Secrets Act of 1911 (Thomas 1987), the release of information by the HSE unless for the purposes of carrying out its general duties, was and still is restricted by a catch all confidentiality clause in the Health and Safety at Work Act (HSW Act). Section 28 prohibits the disclosure of "relevant information" without the consent of the person who furnished it; "relevant information" being essentially anything collected or learnt in the course of inspection or the enforcement of regulations. It was under this wide ranging confidentiality rule that restrictions on information release were principally enforced. There were though some exceptions allowed for, providing significant but isolated instances of detailed information release. Most importantly section 14 of the Act permitted the HSC to undertake and publish the results of investigations into accidents and other specific topics of inquiry which led for example to the publication of detailed risk assessments on the Canvey Island complex (HSE 1978, 1981), although the first Canvey report was in fact criticised for excluding "essential information" from its published

version on the grounds of confidentiality (Tye 1980).

2. There was no obligation on industry to give information to the public. Industry itself largely kept a low profile on hazards and resisted public access to information.

Legislatively no obligations were imposed on industry to give out information before 1986. Section 3(3) of the HSW Act had provided for the making of regulations which would require employers to give information to any "persons who may be affected by the way in which he conducts his undertakings", clearly refering to offsite risks to the public. However this section of the Act was never implemented or even discussed at a policy level after some initial intentions were voiced in early HSC reports (HSC 1977;13). In general industry also prefered to keep a low profile on major hazards (for a number of reasons discussed below). Site operators often had contact with the local community but this was usually restricted to local organisations and political representatives rather than more widely with the general public. The occassional exception can be found; for example ICI in Runcorn, Cheshire distributed letters to the public living near to their Castner Kellner site as early as 1974 telling them of the actions they should take in the event of a toxic release from the plant.

3. The confidentiality concerns of the HSE and industry in turn restricted the information which local authorities in fulfilling their emergency planning and land use planning roles were able to, or felt able to pass on. Policy here could though be more variable.

Within local authorities emergency planning for major hazards has only

recently become formalised (Home Office 1986). Traditional approaches did not include the pre-warning of the public as to what could happen in an accident or as to what actions they should take, and the emergency services involved (fire, police and ambulance) usually operated a policy of confidentiality over their local operations and over information on major hazard sites. There was no requirement on them to allow access to documents or to release information.

Land use planning is in contrast traditionally a far more open system of government (if not the most open; Macgill 1984). Planning procedures allow for the public to comment on planning applications and forward plan documents, and for the making of representations at public inquiries (Royal Town Planning Institute 1982). From 1972 the treatment of planning applications and forward plans could involve industrial risks as a legitimate planning concern (Department of Environment 1972), so there was a clear potential for the details of site locations and operations to become public knowledge through the planning system. In some cases, generally at at major planning enquiries such as Canvey Island (Lagadec 1985), Mosmorran (Macgill 1983) and Thornton Cleveleys (Department of Environment 1982), large amounts of information were made publically available on details of inventories, processes and hazards and active public participation took place within the general constraints of the public inquiry process. Some forward planning exercises also directly addressed the land use implications of major hazard installations (Collins and Payne 1984).

On the other hand, many decisions over smaller, less visible and less controversial hazards could be made with the minimum of hazard information becoming publicly available and with the potential for

public involvement severely limited. This could happen because (i) there was no requirement on planning authorities to advertise planning applications with hazard implications (ii) major hazard sites could be hidden and planning application titles (which could be scrutinised in application registers) did not necesserily indicate the involvement of hazardous materials (iii) planning authorities had considerable leeway in deciding whether to actively encourage public involvement or make hazard concerns explicit in, for example, forward planning documents (iv) planning authorities themselves had inadequate control over major hazards and complained that they also were not given adequate information by the HSE (Petts 1985). Different positions on access to information were taken by planning authorities, some adopting an attitude closely akin to that of industry and the HSE, either because they agreed that confidentiality was necessary or because they felt constrained by the confidentiality concerns of the HSE, and others an attitude of greater openness and active encouragement of public involvement (see Walker 1986 for case studies of different approaches taken). Some planners clearly resented the fact that the HSE's secrecy was impinging on their own duties to the public. One planner commented:

> "The method of working of major hazard control certainly has a touch of MI5 about it which does not really ring true with the current openness of the planning process ... I feel that the present discomfort and concern being expressed by local planning authorities on a national scale must stem primarily from the oppressive and secretive way in which this creature has imposed itself on one of the more open systems of government" (Allan 1979)

These three factors served to limit the ability of the public to find out information on major hazard sites and to make an informed involvement in participatory structures. It would be wrong however to conclude that major hazard issues were excluded from public debate. At a policy level reports were published, consultation was undertaken over new regulations

(as required by the HSW Act) and papers were presented about what the HSE, industry and planning authorities were doing over major hazards. On this basis the HSC later claimed that they had been the "opposite of secretive in the general conduct of their functions" (HSC 1985a;3). The crucial point was though that information on particular sites, or "local information" as discussed earlier, was much harder to come by, apart from where particular controversies forced public discussion of site specific issues. This limited public awareness of the location of hazards and obstructed the scrutiny of the implementation, as opposed to the drawing up, of regulations. For example, research into the operation of planning procedures by the present author was hampered because the HSE would not reveal the locations of major hazard sites and several planning authorities refused discussion or access to records on confidentiality grounds. Although other authorities were more open, publication of research results could not refer to specific major hazard sites or to the local authorities concerned (Walker and Macgill 1985, Walker 1984).

3.2 The Justification of Information Restriction

Under the established approach, public access to information was therefore either not provided for, or actively prevented by legislation (although exceptions have been pointed out). The failure to implement section 3(3) of the HSW Act and the stringent restrictions of section 28 in particular point to an active obstruction of public rights. Whilst in some respects the secrecy of the HSC was no more virulent than the general secrecy of government in the UK, confidentiality concerns extended further than in other areas of environmental control (the location of nuclear power stations was at least well known) and were more pervasive in their effect. On what grounds was a policy of information restriction pursued and justified?

— At its most basic, the adoption of information restriction policies was part and parcel of the philosophy of approach to risk regulation in the UK. This "consensual" approach (O'Riordan and Wynne 1987) is characterised by the fostering of a close collaborative relationship between regulator and regulated and the protection of this relationship through mechanisms of confidentiality and restrictions on third party access (ibid). The HSW Act was drawn up under a philosophy which considered that safety was to be best achieved through mutual cooperation, persuasion and negotiation rather than through strict standing setting and coercion. In this collaborative context, section 28 reflected concern that the willingness of industry to divulge information to the HSE, should be protected by a restriction on who subsequently had access to that information. In particular it was argued that industrial competitors could gain unfair commercial advantage by having access to information on operations and processes used at other sites. This point is made by the HSC in discussing the prospects for increased information release:

> "The Commission and the HSE are fundamentally dependent upon the willingness of industry to make information about processes and substances freely available on either a formal or informal basis. Any hindrance to the passage of information arising from a lack of confidence by employers that it would be properly handled and where necessary safeguarded from competitors would be a serious setback to the HSE's ability to safeguard the health and safety of employees, the self employed and the public. It follows that the HSE must continue to protect information which it receives (HSC 1985a;13)

Industry argued that not only would their own interests be jeopardised by the release of "commercially confidential" information, but that the protection of safety, which was principally to be achieved through the maintenance of sound onsite management practices, could suffer if the relationship between HSE and industry was not protected.

— This emphasis on the protection of the regulatory principles of the HSW Act, was not in anyway counterposed at a policy level by a recognition that the public had particular concerns over offsite risks which justified their access to information generated and collected in the process of regulation (workers on site in contrast had fairly comprehensive rights to information on work place risks). Public rights to information simply did not feature in the debate surrounding the emergence of a framework of regulation for major hazard control during the 1970's (the neglect of the topic by the first two reports of the Advisory Committe on Major Hazards was crucial in this respect; HSC 1976, 1979). Attention instead centred on the more pressing problems of identifying hazardous sites, tightening up planning legislation, formulating principles of management and advancing the understanding of hazard impact. There was perhaps an inevitable bias in the formulation of policy towards technocratic and managerial concerns, handled within the traditional confines of expert government and consultation with involved bodies.

— Alongside the need for commercial confidentiality other reasons were put forward as to why major hazard information was of particular sensitivity. Both government and industry pointed to the problem of terrorism and national security (HSC 1985a;2). It was argued that releasing information on hazardous sites could potentially reveal information of use to terrorists and saboteurs attempting to cause major disasters (Kafka 1984). This fear was in part been based upon an amateurish attempt by the IRA to create an explosion at a Canvey Island complex in 1979 (Lagadec 1982;215) and reports that IRA bombers arrested in the UK had a list of hazardous industrial sites in the Liverpool area . In the context of the spread of terrorism across the world, the threat of attack has been, and

continues to be of concern to the chemical industry (Chemical and Engineering News 1985).

— Concern was also expressed (frequently implicitly), that the release of information on the risks involved and the damage which could potentially be inflicted on local communities from what may have been considered benign industrial neighbours, could lead to unnecessary and undue public alarm (HSC 1984;12). Undue, that is, in relation to the unlikelihood of a potential hazard being realised. In opposing proposals for greater information release the CBI argued that "adverse" reactions could result either from sensationalist coverage by the media or from the misuse of information by pressure groups (private communication). The assumption of public "overreaction" was also implicit in the commonly held view that the public were "irrational" in how they viewed risk concerns, overinflating the likelihood of risks being realised in comparison with their actual occurrence (Rothschild 1978). Such justifications were not confined to industry; examples of local authorities withholding information from public documents on these grounds were also seen e.g. Wakefield Borough council excluded the names of hazardous sites from a local plan partly in order to avoid public alarm, and in the Humberside Structure plan of 1983 a list of sites and what were considered to be "emotive terms" were similarily ommited (Walker 1986).

— These justifications whilst providing the rationale for confidentiality do not necesserily wholly explain why such policies were followed. Other interpretations may also be made. Frankel (1984) challenges the integrity of conventional justifications and identifies a number of alternative reasons for environmental secrecy, including; the protection of industry from pressure for new controls or the pollution agency from allegations

that they are not properly enforcing those that already exist, the concealment of the fact that decisions are inevitably based on subjective judgement or political considerations, and the protection of an authority that is powerless to deal with problems effectively.

In several respects such explanations may be applicable to the major hazard field. Certainly it was the case that in the 1970's knowledge of and expertise on major hazards was far from a state of maturity. The control authorities initially had little adequate information on major hazards installations - a rigorous system of site identification was not in place until 1982 (Statutory Instruments 1982) - and planning controls for example, were full of loop holes, allowing hazards to be introduced without planning permission being required (Petts 1985). It may well therefore have been easier for the regulatory structure to limit information release until the mid 1980's when expertise and the process of regulation was less clearly deficient and open to criticism. On the other hand it could be also be argued that public information provision inevitably had to wait its turn whilst these other more pressing concerns were addressed by an underfunded and hard pressed policy making and enforcement body.

In one respect, that of not revealing site locations, the justifications for confidentiality are particularily hard to swallow. Subsequent publication of lists has had no obvious ill effects, and there always was an anomaly in the fact that the Canvey island reports could be published but yet the locations of similar sites could not be revealed by the HSE. The observation made by Williams in respect of confidentiality in the closely related nuclear sphere may be relevant here:

> "In the atomic energy field in Britain one feels secrecy having begun as a necessity, continued as a convenience and eventually became an obsession" (Williams 1980)

The refusal to disclose the locations of major hazard sites, similarily appears to have been more of an obsession than a policy grounded in plain reason.

4. Pressures for Change: Accidents and Campaigns

The restriction on public disclosure of information on major hazard sites, remained in place effectively until the beginning of 1986. Changes in practice occured during 1986 as a result of a growing recognition over preceding years of the importance of public rights to information in both practical and political terms, and as a result of a gradual weakening in the arguments put up against disclosure. Three factors in particular served to press for a change in approach, challenging established restrictions, and questioning the credibility of industry and government in the handling of major hazard concerns. Significantly two of these are international in scope.

(1) **The EEC and the Seveso Directive** - as is increasingly the case with environmental matters, European opinion was crucial in eventually leading to policy change within the UK. As a result principally of the accident at Seveso, Italy in 1976 the EEC decided to formulate a Directive concerned with the control of industrial major hazards, with the intention of unifying regulatory approaches across member states (Haigh 1987). The resulting "Seveso" Directive drew heavily upon proposed British

regulations which were going through the stages of drafting and consultation in the late 1970's (HSC 1978), as in many ways UK deliberation on the issue was in advance of that of the other member states at the time. However, the Directive crucially differed from the UK approach in introducing a clause concerning the provision of information to the public. As has been discussed, such a requirement had never been proposed as part of the UK regulatory strategy and indeed had been directly avoided through the non implementation of section 3(3) of the HSW Act. For the EEC, public information would seem to have featured on the regulatory agenda, because at Seveso provisions for prewarning or passing information onto the public had been particularily poor - it had taken 2 days for people to be advised not to eat local vegetables, 10 days for the consumption of all local produce to be banned, and 16 days for evacuation measures to be initiated (Pocchiari et al 1987). What the Directive required in its initial draft form, was that:

> "The member states shall take the necessary steps to ensure that persons outside the establishment who are liable to be affected by a major accident should be informed in an appropriate manner of the risk in question and of the safety measures relating to such an accident" (Official Journal of the European Communities 1979)

Not surprisingly this proposal met with substantial initial resistance in the UK. Objections were made both in relation to the principal of releasing what could be sensitive information to the public, and in the wide catch all definition of the hazardous sites to which it would apply (House of Lords 1980). However when the final form of the Directive was eventually adopted in 1982 the initial proposal had been substantially revised and in the process weakened. The requirement for the public to be "informed ... of the risk in question" dissappeared. Instead they were to be informed only of ".. the safety measures and of the correct behaviour to adopt in the event of an accident" (Official Journal 1982), so that the

article now fulfilled a more restricted right to cope or emergency planning function. The requirement was also now only to be applied to a more restricted category of high hazard top tier sites of which there were 200 or so in the UK, whereas under the broader definitions of the original draft Directive the requirement would have applied to thousands of sites in the UK.

Even so, the Directive as finally agreed, established for the first time what was to be a public right to information on major hazards at a local level. It therefore represented a direct challenge to both industries claims for commercial confidentiality and security, and to the HSC's policy on revealing site locations. In order to comply with the Directive by 1985, a new approach to public disclosure was needed and a more positive attitude would have to be adopted by industry towards communicating with the local community about the risks it presented.

(2) **Open Government Debate** - the disclosure policy of the HSE also came under broader attack during the early 1980's from the burgeoning open government debate in the UK (Delbridge and Smith 1982, Wilson 1984). This created an environment in which confidentiality had to be more effectively justified and brought questions of public access clearly onto the agenda of political and media led debate. The reorganised and widely supported Campaign for Freedom of Information targetted HSE policy for particular attention with the confidential locations of major hazard sites put at at the top of a list of "national scandals of environmental secrecy" in a well publicised 1984 report (Campaign for Freedom of Information 1984). The Campaign provided a closely argued case for regulatory openness arguing that as well as recognising public rights it would improve the quality of decision making and the effectiveness of regulation (Frankel

1984). On the problem of commercial confidentiality it was argued that even where information was commercially sensitive, the protection of health and the environment may justify its disclosure, and that in practice the definition of a "trade secret" was often drawn too widely (ibid). This point was also made by the Royal Commission on Environmental Pollution in its 1984 report:

> "We think that refusal to release information on grounds of confidentiality tends to become a reflex action, without specific reference to the question of whether commercial interests are truly at risk"

Pressure for reform from the Campaign for Freedom of Information culminated in the formulation and introduction of a private members bill specifically concerned with public access to major hazard information in 1985 (Bill 175, 1985). This would have given the public the right to see any official document relating to the storage of dangerous chemicals, unless it contained specifically exempted information, although these exemptions could also be overriden on the grounds of public interest. The Bill was not supported by the government and did not progress very far. However such direct attempts within parliament to establish fundamental public rights to information, demanded a response from government in either justifying existing confidentiality or in bringing forward its own proposals for greater disclosure. In the event the government responded by initiating review of policy in 1984 (see next section).

At a local level matters were also on occasions coming to a head. In support of the Campaign for Freedom of Information several local authorities took it upon themselves to release lists of major hazard sites in their area (Taylor 1985). Leeds City Council was quoted as stating that:

> "As far as we are concerned there is no real secrecy about this information. We have a list of major hazard sites which we need for planning purposes ..... Anyone with a genuine reason to consult about the location of the sites will be given that information by us" (Yorkshire Evening Post 1984)

Despite temporarily souring relations between the area HSE office, who considered the list of sites still to be confidential, and the Leeds planning department, no further repercussions arose from this initiative, indicating that HSE policy could be effectively undermined at a local level.

(3) The impact of Bhopal - whilst the impending implementation of the Seveso Directive and continued political lobbying for public access to information pressurised HSC policy, the accident at Bhopal, more than any previous accident challenged industry to be more open with the public. Throughout the drawing up of the Seveso Directive and early discussion of public information rights, industry had still resisted the release of information. However after Bhopal it was clear that public confidence in the safety of the chemical industry had been severely damaged, and that in order to avoid the crisis of confidence and credibility experienced by the nuclear industry after Three Mile Island, a more open and active communication policy would have to be adopted.

Suddenly multinational industry was at pains to stress its public information obligations and occassionally to admit to past inadequacies. A representative of Dow Chemicals acknowledged:

> "I general I believe industry has done a very good job in the evaluation and control of risk .... but in this last role, that of educating the public we have done very poorly" (Moolenaar 1986)

At an internationl conference in 1986 on the "Chemical industry after Bhopal" one of the chief topics of discussion was that of public rights -

significantly a feature of no earlier conference on chemical hazards. Several speakers stressed the importance of the chemical industry taking up communication programs, warning of the prospect of increasingly stringent legislation if this was not done on industry's own initiative. Other speakers, not least the vice president of Union Carbide, made unprecedented assertions of public rights to know

> "The events of 1984 highlighted the fact that questions of chemical safety are not confined within the plant. The community must be involved. People have a right to know about the chemicals we make and use, and any hazards they involve" (Browning 1986)

A change in approach was signalled in the UK by new communication and education initiatives, and by an emphasis on contact with the community and a sensitivity to environmental concerns. Under the Chemical Industry Association's Open Door Campaign of 1986, 120 sites operated by member companies held open days as part of a programme to

> "Improve the image of the chemical industry by giving the general public alot more news about the value of the industry in every day life and also by inviting people to come and look at a a chemical plant" (Chemical Industries Association 1986)

The open door campaign was considered a great success and has been followed up by the Chemical Industries "green code" under the European Year of the Environment, and repeated assertions within industry of the importance of following environmentally sound policies in the face of continued perceived public disquiet (ENDS 1987a). This emphasis towards the environment and public responsibility helped fostered a climate within which industry was more willing to accept the need for public access to information on hazards. It was also recognised that in order for the industry to potentially gain, in public relations terms, from information disclosure on risks, they would have to become willingly and actively involved in communicating that information.

5. Openness and Communication: new provisions for disclosure

The pressures discussed above, in combination impinged upon the policy status quo. For the HSC they were perceived as constituting a changing climate of public concern and an increasing public desire for information. In its 1985-86 Plan of Work, the HSC identifies public concern as having led to:

> "pressures on us to publish more information, particularily of the kind which enables the public to assess for itself the levels of risk to which it is exposed" (HSC 1985b;28)

In a concurrent report from the HSE it is however suggested that this public concern is not necesserily well founded:

> "The working climate of the (chemical) industry has changed over the last few decades from one where only its benefits were considered , to one where the public wants to know whether the benefits are worth the risks. Some of this criticism is based on fear, lack of knowledge and a lack of appreciation of how much chemicals contribute to our present way of life" (HSE 1986;45)

This is an important component of the rationale with which public concern was being viewed. Information disclosure was to be developed not only in order to satisfy public demands, but also because it was considered that disclosure could itself help to change what were perceived as the unreasonable views of the public in being fearful of, or in opposition to the chemical industry. Reassurance was to be implicit in the process by which information was to be given out. The HSC was clearly thinking along these lines in endorsing principles of public disclosure which would then allow the public to "go about their daily business confidently":

> "The public ... should be in a position to judge what the nature and extent of important industrial hazards are, and, where their own immediate safety could be at risk, should be in possession of information enabling them to

> judge their position, go about their daily businss confidently and know what action to take in the event of some emergency" (HSC 1985a;12)

The Advisory Committee on Major Hazards also predicted the benefits of greater disclosure in its third and last report published in 1984, arguing that from past experience the most successful operators in the country are also the most forthcoming with information, and that information presented in a straightforward way would be likely to reduce rather than increase the anxiety of the public (HSC 1984;11). As a key advisory body on major hazard policy their endorsement of public rights to information was crucial:

> "It seems inescapable to us that if the public are to be expected to live with risks from some industrial installations, however well controlled, they should be made aware of those risks" (ibid)

In order to fulfill the policy statements of the HSC and Advisory Committee, which were clearly recognising that public rights to information would have to be satisfied in some way, the government initiated a review of policy on public access to health and safety information in 1984. Alongside the implementation of the Seveso Directive, this review (HSC 1985a) and the policy statement eventually issued by the HSC in 1986, have provided the format within which moves to greater openness have been structured. Information release has principally involved industry as the chief source, but also to a more limited extent the HSE and local authorities. The current provisions for information disclosure are summarised in table 1 and discussed in turn below.

5.1 Disclosure by industry

The main responsibility for disclosure has been put on industry. The HSC argued that industry was the most suitable source of information because

Table 1: Current information disclosure provisions

SOURCE	PROVISION
INDUSTRY	1. Seveso Sites - active dissemination of information to the population at risk on the nature of the major accident hazard, and of the safety measures and the correct behaviour which should be adopted in the event of an accident 2. Non Seveso Sites - voluntary disclosure by site operator under CBI code of practice
HSE	1. Keeping registers of names and locations of all hazardous sites at local offices 2. Keeping for inspection registers of convictions of these site operators 3. Making available to enquirers information directly needed for the protection of the health and safety of individuals. 4. Making available information on incidents involving the actual release of hazardous substances into the environment, where the site operator declines to do so.
LOCAL AUTHORITY	1. Advertising of all planning applications relating to hazardous installations 2. Holding of registers of all "hazard consents" granted to site operators 3. Access to files and meetings under the Local Government (Access to Information) Act 4. Liason with site operators in distributing information under the Seveso Directive

they create the hazard, have full knowledge of their activities, have some knowledge of the local population at risk, and can ensure that the information to be disclosed "was true and not commercially confidential" (HSC 1985a;6). The requirements on industry to give out information vary depending upon whether the site is one of the 200 sites identified under the Seveso Directive, or one of the 1300 sites not coming within these provisions but identified as hazardous installations for planning purposes.

(1) **Disclosure by "Seveso" Site Operators** - compliance with the Directive has been achieved in the UK through the Control of Industrial Major Accident Hazard Regulations (CIMAH) (Statutory Instruments 1984). These regulations give industry the responsibility for supplying information in voluntary liason with the local authority at a district level. Whilst the format of the CIMAH regulations closely follows that of the Directive, in practice a guidance document issued by the HSE has been important in setting down what is considered to be good practice in compliance (HSE 1985). In this document the HSE takes the opportunity to advise more comprehensive implementation than they could strictly require under the CIMAH regulations; they advise the active distribution of letters to the local public rather than the passive making available of information to inquirers, the inclusion of 11 pieces of information as listed in table 2 (including details of the risk itself, as in the 1979 form of the Directive) and suggest a variety of means by which effective dissemination may be achieved.

Partly as a result of this guidance and the greater willingness of industry to communicate with the public, the actual implementation of the public information provisions of the Directive, has, so far, been

Table 2: Points of Information advised by the HSE to be included in communications under the CIMAH Regulations

1. Name of company or address of site

2. Identification, by name and position, of the person giving the information

3. Confirmation that the site is subject to the CIMAH regulations and that the HSE has been notified

4. An explanation in simple terms of the activity undertaken on the site

5. The common names (where possible) of the substances used on site which could give rise to a major accident, with an indication of their principal harmful characteristics

6. An assurance that the company is taking all reasonably practicable steps to minimise the risk of a major accident in compliance with its legal obligations under the health and safety legislation

7. Details of the site's emergency warning system

8. General advice on the action members of the public should take on hearing the warning

9. An assurance that the company has made adequate arrangements on site, including liason with the emergency services, to deal with forseeable incidents and to minimise their effects both on and off-site

10. A reference to the off-site emergency plan drawn up by the county council (or equivalent) to cope with any off-site effects from an incident (this should include strong advice to cooperate with any instructions or requests from the emergency services at the time of an incident)

11. Details of where further information can be obtained

Source: HSE 1985

far better in the UK than in the rest of Europe (Wynne 1987). Despite the conflict with established UK information disclosure policy, in relative terms implementation been comprehensive and effective. There has been little reticence in revealing that the Seveso sites present a hazard to the community (within a context of repeated reassurances as to their safety), or to specifying what hazardous materials are held, although the amount of detail provided on for example what could happen in the event of an accident has been more variable.

In a study of practice at the 200 UK sites undertaken for the EEC, it was found that compliance (by a year after the regulatory deadline of Jan 1986) was generally good. All but a few sites had distributed information actively, by sending out letters or leaflets to people living around their installation (over an area of between 150-1500m from the hazard source as determined by the HSE for each site), and in about half of the cases additional means of dissemination were used such as newspaper notices, site notices, open days, local liason commities and public meetings. At their most basic simple letters have been used to present information, in most cases including all the key points specified by the HSE. Other operators have developed more extensive leaflets and information packages with seperate emergency action cards listing the actions to be taken in the event of an accident. These packages have also been used to put over public relations material giving information on end products, their use to society and so on, and at times such material has been in danger of dominating over information on risks.

(2) Disclosure by "Non Seveso" Site Operators - for the 1300 hazardous sites not coming within the Seveso Directive there is a policy of

voluntary information disclosure by industry under the guidance of a code of practice. Several attempts were made to establish disclosure for these sites on a statutory footing, but on each occassion industry's objections to the unequal regulatory burden relative to the rest of Europe, and their preference for voluntary and flexible approaches to communication, prevented a statutory requirement from being established. The HSE considered extending the public information provision of the Seveso Directive to cover all hazardous sites in the country in a confidential discussion document of 1983, but this proposal was reported to have been squashed by industry and never appeared in the draft CIMAH regulations (New Scientist 1983). The HSC also later suggested that all hazardous sites could be required to produce a formal document relating to community health and safety as part of its overall review of public access to information. This was again rejected as a necessary policy step.

In order to counter criticism that there were consequently many hazardous sites in the UK not covered by a public disclosure requirement a general code of practice on "the disclosure of safety, health and environmental information" has been formulated by the Confederation of British Industry (CBI 1987). Whilst having no statutory backing this leaflet does indicate a committment to greater openness at a policy level advocating a series of important and potentially telling principles of disclosure as listed in table 3. These represent a clear reorientation of community relations. It is recommended that operators establish a relationship of "openness and trust" with the community through having information readily available to explain activites and where possible through anticipating concerns and avoiding misunderstandings. The extent to which this advice has

Table 3: CBI Adopted Principles for the Disclosure of Safety, Health and Environmental Information

* Firms should establish policies to secure openness in safety, health and environmental information, and should make adequate arrangements for their application in practice

* Firms should provide the local public with sufficient information appropriate to the circumstances to enable them to understand the nature of the potential risks and the arrangements that exist for their safety

* Firms should, wherever possible, agree to requests from regulatory authorities to consent to disclose to the public information previously supplied to such authorities

* Firms should support the disclosure of information to the general public sufficient to enable them to be well informed and reassured about the extent and efficiency of the controls which regulatory authorities operate on their behalf

* Firms should handle all specific requests for information quickly and politely and , in the event that information cannot be disclosed, reasons should be given

* Information necessary to protect the safety or health of the public or an individual should always be disclosed

* Firms should withhold safety, health and environmental information on grounds of confidentiality only if they are genuinely satisfied that confidentiality is justified for commercial or personal privacy reasons

* Firms should keep representatives and spokesmen for the local community - local councillors and officials, Members of Parliament and the the European Community and the media - regularily informed of site activities and proposed developments or future events that concern the public

Source: CBI 1987

been followed in practice remains to be seen.

5.2 Disclosure by the HSE

Whilst industry was to form the principal avenue of information disclosure, the HSC also considered that the HSE should play a limited role in releasing basic information statutorily notified to it, along with particulars of some of its enforcement actions (HSC 1986;2). Priority was still however given to maintaining the confidentiality of information it received from industry; the HSE was in no way opening its doors to arbitary scrutiny of detailed documentation. A number of problems were identified with the HSE taking on a larger information provision role including those of costs, maintaining industry's trust and defining what was commercially confidential at any point in time. Most fundamentally section 28 of the HSW Act was still seen as legally preventing greater public access to information via the HSE.

In order to give the HSE any role in information provision, and in particular to allow the publication of site locations without the previous policy of confidentiality appearing unjustified, the legal restriction of section 28 had to be lifted. Consequently the HSC announced in 1986 that it had received legal advice which concluded that section 28 did not after all prevent the Executive from disclosing information for the general purposes of the Act, which included the protection of the general public (HSC 1986;5). This crucial, if convenient legislative reinterpretation now meant that the HSE could play a limited information provision role, involving the holding of registers, and the provision of more detailed information in particular exceptional circumstances. The information now available from the HSE is listed in table 1. For the first time lists of hazardous sites were to be made publicly available at local HSE offices

and in line with this policy the HSE published a list of the 200 Seveso sites in the UK in March 1986. However, the limited role played by the registers of sites is made clear by the HSC statement that their principal role is to enable people to know where to go to get further information (HSC 1987;14).

5.3 Disclosure by Local Authorities

In section 3 it was shown that there was a conflict between the confidentiality concerns of the HSE and the openness of the land use planning system, which could lead in some instances to the obstruction of informed participation in decision processes (although the HSC have denied that any problems did in fact exist; HSC 1985a;8). The effect of the publication of lists of sites by the HSE has been to alleviate the root of this conflict, as it has removed the uncertainty as to whether the public discussion of the location of major hazard was in breach of confidentiality. Other specific measures have also developed the information provision role of planning authorities:

- Under planning circular 9/84 planning authorities are now advised to advertise all planning applications which have to be sent to the HSE for their expert advice; this includes all applications for major hazard sites and significant development in their vicinity (Department of Environment 1984).

- Under the Local Government (Access to Information) Bill, a legislative initiative stemming directly from pressure exerted by the Campaign for Freedom of Information, a presumption of public access to all files held by local authorities now exists. There are however several exceptions to this rule, including information deemed to be commercially confidential. Access for example to detailed hazard assessments undertaken for planning

applications could therefore still be refused.

- Under new regulations intended to tighten up planning authority control over the introduction of hazardous sites, planning authorities are to be required to hold registers of "hazard consents" for public scrutiny (Housing and Planning Bill 1986, Part IV). The location of major hazard sites may therefore be also ascertained from local authority offices, an important logistical concern as they are distributed more widely acros the country than the 21 regional HSE offices where lists of sites are also held.

- Under the CIMAH regulations local authorities have liased with site operators over at least the circulation of information, although the scope of their role has not been clearly defined.

6. Evaluation and Discussion

6.1 Public Rights: current status

The past few years have seen a marked transition in the disclosure of information on major hazards. From a state of pervasive confidentiality we have progressed to a position where a number of significant and innovative steps have been taken to both allow public access to information and to encourage greater openness by industry. It is not possible to say, however, that the three public rights identified earlier have now been fully recognised. Access to information has not come about through the granting of basic rights of public access to official documentation, but through a piecemeal combination of statutory requirement, policy statement, and voluntary guidance. Consequently if public rights are considered only in terms of defendable and obligatory access the scope of public rights now recognised is relatively limited. If a wider view is taken and trust is put in industry and government to follow in practice

their committment to openness in principle, considerably more has been achieved. In this light the current status of public rights may be summarised as follows:

Right to Know - although it is hard to define what represents an adequate realisation of the right to know as a moral principal, it is at least now possible to find out where the sources of potential risk are located. For Seveso sites this information has been actively given to those considered to be at risk, along with information on the nature of the materials held, the safety measure employed, the effects of an accident in basic terms and so on. Most dissemination practices have also allowed for the public to ask questions about and comment on the information provided, at least through the provision of contact points for answering queries. For sites not coming within the Directive the availability of information beyond the site location will depend on the attitude and openness of the manufacturer involved. The HSE itself is unable to give any more detailed follow up information (except in exceptional circumstances), so there is a reliance placed on the site operator to be accurate and truthful in the description of the hazard.

Right to Cope - information to better prepare those at risk for dealing with an accident event has now been actively distributed to populations living near to the 200 Seveso sites. This is a major step forward for emergency preparedness, although emergency planning and community warning systems have yet to reach the sophistication of approaches employed in the US (Quarantelli 1984, 1987). For non-Seveso sites emergency planning information may have been distributed by the manufacturer off their own backs, or under pressure from the local

authorities anxious for the public to be given information near to all identified hazards within their boundaries. A "right" as such does not however exist for these sites.

An anomaly in the Seveso Directive's provisions is that no repetition of information dissemination is required. Although most site operators responding to the survey expressed a committment to repeat information dissemination (over a variable period), there is clearly a potential for committments to lapse and repetition to be forgotten. Without repetition no right to cope exists for new or future populations. Other questions have also been raised over the adequacy of the provisions of the Directive, in particular as to whether or not the zones over which information has been distributed are of sufficient size to cover populations at risk from forseeable incidents (Brass Tacks 1986). In general however there have been few disputes over zone size and policies have erred on the safe side.

Right to Participate - this has two components; the ability to identify issues of concern and the subsequent ability to have access to information with which to comment. Within the planning system lists of hazard consents and the advertising of planning applications has alleviated problems with the recognition of potential issues of concern. There should also now be no grounds for planning authorities not making hazard concerns explicit in local plans. As far as access to further documentation is concerned public rights are still limited (as discussed below); access will depend upon the circumstances of each planning application, controversy or incident and the attitudes of the company and planning authority involved. Scrutiny of the operations of the HSE is still also strictly limited, although at a national level

there is a commitment to greater explanation of policies (HSC 1987;15).

Perhaps the most significant feature of the rights achieved is the fact that under the Seveso Directive information has been actively given out. This is the first time such a right has been achieved for an environmental risk concern - people living near to nuclear power stations for example have no such right. Parrellels may be seen though with the protection of consumer rights to information on health effects through product labelling. Active dissemination has a greater chance of reaching the mass of the public and directly stimulates their attention. Passive information relies upon information being sought out by those who take a particular interest. The use of active approaches is in this sense a major step forward particularily in satisfying "right to cope" objectives which cannot be adequately realised through passive information availability. At the same time however, active approaches on their own cannot necesserily satisfy right to know or right to participate functions which demand a greater level and range of content.

6.2. The Limits to Openness

Despite the significant advances made in public rights it is clear from the above summary that there still is a limitation on the information which is, and can be disclosed by different sources in different circumstances. Information is also made available within a context determined by the perceived function of disclosure.

(1) Categories of Sites - there is an obvious difference in the provisions made for disclosure between the 200 Seveso and 1300 non Seveso sites. This discrepancy has arisen because of the different definitions of hazards

within European and UK legislation. Industry has also resisted attempts by the HSE to unify disclosure requirements. Can this difference in treatment be justified however by the fact that the smaller number of Seveso sites notionally present a higher hazard than the larger number of non-Seveso sites? Whilst there may have to be some form of targetting of sites on resource grounds, it is not necesserily the case that Seveso sites are always those presenting the highest risks. Smaller non Seveso sites may often be found within urban areas, hidden within mixed industrial development and in close proximity to housing. This locational factor may outweigh the fact that they store less hazardous material than a large chemical plant which through its larger site area may also have more inherent spatial separation and is more likely to be located away from population. The reliance on voluntary information provision for non-Seveso sites is therefore hard to justify on hazard grounds alone.

(2) Access constraints - the amount of information accessible by the public on major hazard sites is still limited by the confidentiality concerns of industry and the HSE. In terms of defendable rights of access to documentation held by the HSE the scope of disclosure extends no further than registers of sites. The HSE is required to divulge no other information, for example on investigations it has undertaken or assessments of site safety. A recent private members bill advocating public access to registers of warning notices issued to site operators by the HSE where safety has needed to be improved, was blocked by the government, indicating that they see no urgency in further opening up the HSE to outside scrutiny (Environment and Safety Information Act 1988). There is in this sense no presumption of public access to official documents unless specific reasons for restriction exist, as the Royal Commission on Environmental Pollution has endorsed as a principle of

access in its 10th report (op cit).

A clear indication of the limits to access still operating can be seen in the the confidentiality of access to more detailed documentation drawn up under the Seveso Directive. For each site two key documents have to be prepared; a "safety case" and an offsite emergency plan. Neither of these are officially available for public scrutiny as the provisions of section 28 of the HSW Act have been applied to information collected under the CIMAH regulations (regulation 13 of CIMAH maintains this protection, a provision not required by the Seveso Directive itself). The safety case prepared by the manufacturer and submitted to the HSE contains information on the site, its activities and surroundings, description and assessment of the potential hazards and their consequences, and of safeguards taken to prevent these hazards being realised (HSE 1985). Both industry and the HSE have expressed strong resistance to formal public rights extending to include the scrutiny of these safety cases. Tony Barrell head of the Major Hazards Assessment Unit of the HSE reassured industrialists in 1983 that:

> "Can I assure anybody here present who is going to carry out safety cases that we would not reveal any confidential material that they may contain when we should not do so. We are bound by the Official Secrets Act and also by Section 28 of the HSW Act" (Oyez 1983; 175)

Offsite emergency plan documents are drawn up by county emergency planners in liason with district authorities manufacturers and the local HSE. Information release policy has here been more locally determined, leading on occassions to conflict between the parties involved. In some cases HSE, manufacturers and emergency planners have all agreed that the document should on no account be publically available. In others general summaries have been placed in local public libraries, and in a few, full documents (with only personal details omitted) have been made publicly

available.

(3) Need to know/right to know - the implementation of access to information provisions has indicated a confusion in the objectives of disclosure. Whilst broad policy statements indicate that a "right to know" as a principle is being recognised, in practice emphasis has been placed on the more practical "need to know" objectives which have been more readily accepted by industry as legitimate grounds for public access. The primary concern has been to inform those people directly at risk about possible accident events and actions they should take, rather than to establish general rights to documentation. This approach is reflected at its most extreme by some site operators and local authorities who follow a policy of not making leaflets distributed to specified populations under the Seveso Directive generally available to all inquirers. Most other operators, have been in contrast generous with their provision of information but an emphasis on need to know objectives is still apparent; in the course of interviews with over 30 operators and local authorities involved in distributing information under the Directive priority was given overwhelmingly to emergency planning objectives. Few gave importance to the more amorphous concepts of the right to know or the right of the public to scrutinise what they were doing. Policy developments outside of the Seveso Directive have also reflected this approach in relying upon the voluntary provision of information by industry. Industrial operators are then able to determine for themselves what information is "needed" to be made available and to which people, a situation criticised by the Campaign for Freedom for Information as being unlikely to attract public confidence (op cit 1985).

(4) Reassurance - throughout all of the information provision developments described there has been an emphasis on reassurance. Reassurance of the public that the risks involved are small, accidents very unlikely and that all safety measures have been taken. The HSC places the need for reassurance of the public that the "risks are remote" at the forefront of information ojectives (HSC 1985a;1). Assessing the adequacy of information provision in the context of such reassurance is problematical. There is clearly a thin dividing line between justified reassurance, and over confidence and obscuring of the uncertainties involved. Public rights to information could consist of rights of access to principally factual information; for example data sheets on chemicals and their clinical effects, assessments of safety and hazard impact. The approach in the UK has not been to present information in a bare form, but to present it in the context of the benefits of the industrial operation concerned and the products made, and alongside continual assertions as to the safety of processes undertaken. This approach is endorsed by John Cullen then chairman of the HSC, alongside the assumption that reassurance will then follow:

> "Another facet of the public's wish to know what is going on is its ability to understand any information that is made available to it. Detailed technical data would go straight over most people's heads. Nevertheless there are means by which the information can be presented in ways which will reassure reasonable men" (Cullen 1984)

The approach to disclosure has thus been one of "communication" rather than information provision with the implicit assumption that reassurance of the public is justified for each and every major hazard being operated. Again a "need to know" ethos is apparent where the education and compliance of the public in accordance with a particular point of view, has tended to predominate over the provision of information with which the public may independently form opinions or become actively involved.

Whether or not communication overwhelmes information provision is dependent upon the details of each operators approach in each case. There is a continued need for the scrutiny of communications. Certainly very few of the leaflets distributed under the Seveso Directive mention any of the uncertainties involved in assessing or controlling hazard. A picture of expert control is presented which some would clearly dispute.

7. Conclusions

The key aspect to be drawn out of this discussion of risks, rights and secrets, is that the public have now been recognised as having legitimate grounds for access to information on risks to health, safety and the environment. Indeed, it is clear from statements made by government and industry, that public access to information has now become a key component of the process by which the credibility of risk management procedures is to be maintained. In this climate confidentiality can no longer be so pervasively applied or so complacently justified. For whilst to an extent the greater access which has been achieved reflects only broader developments in the openness of British government, these developments also indicate an increased sophistication in the management of risk concerns under which regulation behind conveniently closed doors can no longer suffice.

At the same time there are still clear limits to openness in place. Under the coercion of the European Community, pressure group campaigning, public opinion after accident events, and the HSC/HSE themselves (who as has been shown have at times pushed for more effective public access), adaptations have been made to the established processes of risk regulation

but the relationship between regulator, regulated and the public has not fundamentally changed. O'Riordan (1985) comments on the "resilience of British Democracy to adjust to new demands for accountability" and this adaptation is a case in point. The public have been partially included in societies attempts to manage industrial risk, but the process of "consensual" regulation is still effectively protected from outside scrutiny. The continued importance of commercial confidentiality, the reliance on disclosure by industry and the attendant emphasis on public reassurance all follow from the continued assumption that safety will be best achieved through cooperation between industry and regulator and the application of expert professional judgement.

Whilst the scope of public scrutiny is still limited the disclosure which has been allowed has had important practical functions, in particular in better preparing those at risk for emergency events. Publishing lists of sites has also removed what was blatantly an unreasonable restriction on access to information, and one which can only have served to increase suspicion and hostility in the past. Disclosure has also had few "adverse" consequences. Much to everyones surprise, active public response to the giving out of information under the Seveso Directive has in the experience of industry and local authorities been minimal, although research is urgently needed as to what the less visible public response has been. This has directly challenged the fears which many had that releasing information would lead to public outcry, fears which were in turn used as part of the justification for restricting information release. That public outcry has not been the result is testament either to the stability of public concerns, or to the effectivenness of information management practices. This experience must encourage further openness and responsiveness by industry in the future.

Whether greater rights of access to information are needed is open to debate. Industry would argue that public interest so far would not warrant it and that existing provisions allowing a flexible and locally appropriate response are sufficient. The Campaign for Freedom of Information have argued that on the contrary greater access would improve the process of regulation and that current disclosure cannot satisfy the public rights to information which the HSC has itself endorsed (Campaign for FoI 1985). Certain inconsistencies and anomalies have also been identified in the latter sections of this paper, and questions asked in particular as to whether the emphasis on reassurance is compatible with the provision of information to satisfy the wider objectives of granting public rights to information. Attention is now moving towards these wider objectives and it is unlikely that we have reached a status quo. The European parliament has recently proposed, in discussing the amendment of the Seveso Directive (ENDS 1987b), that all information supplied by the manufacturer about its activities to the authorities, including safety cases, should be freely available to the public. If such a step were to be taken it would more fundamentally challenge the way major hazards are managed in the UK and more radically open up the process of regulation to potential public scrutiny.

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References

Allan G., (1979) Secrecy and the HSE, letter to the editor, Planning, 308, 2.

Baram M., (1986), Chemical Industry Accident hazards and the Emerging Legal Framework for Risk Communication and Community Right to Know, in Air Pollution Control Association, Avoiding and Managing Environmental Damage from Major Industrial Accidents, APCA, Pittsburgh.

Brass Tacks (1986) Cloudburst!, programme shown on BBC2, 17/4/86.

Browning J.B. (1985) After Bhopal, in, conference proceedings The Chemical Industry after Bhopal, Oyez, London, 15-20.

Campaign for Freedom of Information, (1984), Protecting the Polluter, Secrets File No 2, Freedom of Information Campaign, London.

Campaign for Freedom of Information, (1985), Letter to the HSE in response to Access to Information Discussion Document, 20/6/85, Freedom of Information Campaign, London.

Chapman R.A. and Hunt M. (eds) (1987), Open Government, Croom Helm, Beckenham, Kent.

Chemical Engineer (1985), Permex - the forgotten disaster, Chemical Enginneer, October 1985, 16-17.

Chemical and Engineering News (1985) Vulnerability of Chemical Plants to Terrorism, Oct 21. 1985, 7-14.

Chemical Industries Association, (1986), Chemical Industry Open Door 86, News 2, CIA, London.

Confederation of British Industry, (1987), CBI Guidelines on the disclosure of safety, health, and environmental information to the public, CBI, London.

Collins J., and Payne B., (1984) Case Study: Forward Planning and Major Hazards, in Petts, J., (ed) Major Hazard Installations: Planning Implications and Problems, Department of Chemical Engineering, Loughborough University of Technology.

Conrad, J., (ed), (1980), Society, Technology and Risk Assessment, Academic Press, London.

Council for Science and Society, (1977), The acceptability of risks, Barry Rose Publishers.

Cullen J., (1984) HSC on the Wider Issues, Chemical Engineer, June 1984, 25-26.

Delbridge R. and Smith M., (1982) The Secrecy Debate in Britain, in, The National Consumer Council, Consuming Secrets, Burnett Books, London.

Department of Employment (1975) Flixborough Disaster - report of the Court of Inquiry, HMSO, London.

Department of the Environment, (1972), Development Involving the Use or Storage in Bulk of Hazardous Material, Circular 1/72, HMSO, London.

Department of the Environment, (1982), Wyre Borough Council. Application by Broseley Estates Limited. Public Inquiry Report. PNW/5063/219/16.

Department of the Environment, (1984), Planning Controls over Hazardous Development, Circular 9/84, HMSO, London.

ENDS, (1987a) Environment the Top Priority says Chemical Industry Chief, Environmental Data Services, 154, 8.

ENDS, (1987b) Seveso Directive - Minor Amenments now but major overhaul to come, Environmental Data Services, 145, 21.

Fischhoff, B., Slovic, P., Lichtenstein, S., (1981), Acceptable Risk, Cambridge University Press, Cambridge.

Fischhoff, B. (1983) Informed Consent for transient nuclear workers, in R. Kasperson and R.W. Kates, (eds) Equity Isuues in Radioactive Waste Disposal, (Oelschlager, Gunn and Hain, Cambridge, MA)

Fischhoff, B. (1985) Cognitive and Institutional Barriers to "informed consent", in M. Gibson, (ed) Risk, Consent and Air (Rowman and Allenthal, Totowa, NJ).

Frankel M., (1984) How Secrecy Protects the Polluter, in, Wilson D., (ed) The Secrets File, Heinemann, London.

Griffiths R.F., (1984), Chemical Plant Risk Assessment: Uncertainties and Development Needs, Environment International, 10, 523-530.

Haigh, N., (1987), EEC Environmental Policy and Britain, Environmental Data Services Ltd., London.

Health and Safety Commission, (1976a), Advisory Committee on Major Hazards, First Report, HMSO, London.

Health and Safety Commission, (1978), Hazardous Installations (Notification and Survey) Regulations 1978, Consultative Document, HMSO, London.

Health and Safety Commission, (1977) Annual Report 1974-76, HMSO, London.

Health and Safety Commission, (1979), Advisory Committee on Major Hazards, Second Report, HMSO, London.

Health and Safety Commission, (1984), Advisory Committee on Major Hazards, Third Report, HMSO, London.

Health and Safety Commission, (1985a), Access to health and safety information by members of the public, Discussion Document, HMSO, London.

Health and Safety Commission, (1985b), Plan of Work 1985-86 and onwards, HMSO, London.

Health and Safety Commission, (1986), Letter to the Department of Employment, 3/2/86, HSC, London.

Health and Safety Commission, (1987), Annual Report 1985-86, HMSO, London.

Health and Safety Executive, (1978), Canvey: an investigation of potential hazards from operations in the Canvey Island/Thurrock area, HMSO, London.

Health and Safety Executive, (1981), Canvey: a second report, HMSO, London.

Health and Safety Executive, (1986), Report by HM Chief Inspector of Factories 1985, HSE, London.

Home Office (1986) Emergency Planning Guidance to Local Authorities, Home Office, London.

House of Lords (1980) Select Committee on the European Communities, Major Accident Hazards, Session 1979-80, 33rd Report, HLI57, HMSO, London.

Johnston, R., (1980) The Characteristics of risk assessment research, in Conrad J., Society, Technology and Risk Assessment, Academic Press, London.

Kafka, F.L., (1984) The European Chemical Industry's View of Major Hazards Legislation, in Proceedings of the 1984 European Major Hazards Conference, Oyez, London.

Kunreuther, H.C., and Linnerooth, J., (1982), Risk Analysis and Decision Processes: The siting of LEG facilities in five countries, Springer-Verlag, Berlin.

Lagadec, P., (1982), Major Technological Risk, Pergamon, Oxford.

Lihou, D., (1985), Why did Bhopal ever happen?, Chemical Engineer, April 1985, 18-19.

McGinty, L., (1976), Whose acceptable risk?, New Scientist, 16th September, 582-583.

Macgill, S.M., (1983), Mossmorran - Braefoot Bay: aspects of a risk debate, in O'Riordan T. and Turner R.K., Progress in Resource Management and Environmental Planning, Vol 4, Wiley, Chichester, 267-295.

Macgill, S.M., (1984), Public participation in decision-making for hazardous installations, in Petts, J., (ed) Major Hazard Installations: Planning Implications and Problems, Department of Chemical Engineering, Loughborough University of Technology.

Marshall V.C. (1983), Flixborough, Seveso and After, in Implementing the Seveso Directive, Oyez, London.

Moolenaar R.J., (1986), The Industrial Role in Risk Assessment, Science of the Total Environment, 51, 75-80.

Nelkin D. (1977) Technological Decisions and Democracy, Sage, London.

New Scientist, (1983), Industry covers up dangers on the doorstep, 7th

July 1983, p.8.

Official Journal of the European Communities, (1979b), Proposal for a Council Directive on the Major Accident Hazards of Certain Industrial Activities, OJ C212, pp.4-14.

Official Journal of the European Communities, (1982), Council Directive on the Major Hazards of Certain Industrial Activities (82/501/EEC), OJ No. L230, pp.1-18.

O'Riordan, T., (1985) Political Decision Making and Scientific Indeterminacy, in, Covello V.T., et al, (eds) Environmental Impact Assessment, Technology Assessment, and Risk Analysis, Springer Verlag, Berlin.

O'Riordan, T. and Wynne, B. (1987), Regulating Environmental Risks: a comparative perspective, in Kleindorfer P. R., et al, (eds) Insuring and Managing Hazardous Risks: From Seveso to Bhopal and Beyond, Springer Verlag, Berlin.

Otway H. and Thomas K. (1982) Reflections on Risk Perception and Policy, Risk Analysis, 2(2), 69-81.

Oyez (1983), Implementing the Seveso Directive, Conference Transcript, October 1983, Oyez, London.

Petts, J., (1985), Planning and Major Hazard Control, Working Paper MHC/85/2, Department of Chemical Engineering, Loughborough University of Technology.

Pocchiari F., Silano V., and Zapponi G., (1987) The Seveso Accident and its Aftermath, in, in Kleindorfer P. R., et al, (eds) Insuring and Managing Hazardous Risks: From Seveso to Bhopal and Beyond, Springer Verlag, Berlin.

Purdue M., et al, (1984) The Context and Conduct of the Sizewell B Public Inquiry, Energy Policy, 12, 276-282.

Quarantelli E.L., (1984), Perceptions and reactions to emergency warnings of sudden hazards, Ekistics, 51, 511-515.

Quarantelli E.L., (1987), Community and Organizational Preperations for and responses to acute chemical emergencies and disasters in the United States: Research findings and their wider applicability, paper presented at European Conference on Emergency Planning for Industrial Hazards, Varese, Italy, November 4-6th, 1987.

Royal Town Planning Institute (1982) The Public and Planning: Means to Better Participation, RTPI, London.

Rothschild Lord, (1978), Risk, The Listener, 30th November 1978.

Royal Commission on Environmental Pollution (1984), 10th Report, HMSO, London.

Shrivastava P., (1987) Bhopal: Anatomy of a Crisis, Ballinger, Cambridge, Massachusetts.

Sieghart, P., (1979), The Big Public Inquiry, Outer Circle Policy Unit, London.

Slovic P., (1987), Informing and Educating the Public about Risk, in in Kleindorfer P. R., et al, (eds) Insuring and Managing Hazardous Risks: From Seveso to Bhopal and Beyond, Springer Verlag, Berlin.

Statutory Instruments, (1982), The Notification of Installations Handling Hazardous Substances Regulations, SI 1982 No.1357, HMSO, London.

Statutory Instruments, (1984), The Control of Industrial Major Accident Hazard Regulations, S.I. 1984 No. 1902, HMSO, London.

Taylor P., (1985), Risk Decisions must involve the public, Town and Country Planning, 55(3), 74-76.

Thomas R. (1987) The British Official Secrets Act 1911-1939 and the Ponting Case, in, Chapman R.A. and Hunt M. (eds), Open Government, Croom Helm, London.

Tye J (1980) The Deadly Cost of Secrecy, in, Freedom of Information Campaign, Secrecy or the Right to Know?, the Library Association, London

Walker, G. P. (1984) Case Study: Planning Applications and Major Hazards, in, Petts, J., (ed) Major Hazard Installations: Planning Implications and Problems, Department of Chemical Engineering, Loughborough University of Technology.

Walker, G.P. (1986) Planning Control of Hazardous Installations and Development in thier Vicinity, unpublished PhD. thesis, School of Geography, University of Leeds.

Walker, G.P. and Macgill, S.M. (1985) Planning Control of industrial hazard in a major metropolitan planning authority, Environment and Planning B, 12. 463-478.

Williams R.,(1982), Tradition versus Technology, in May A. and Rowan K. (eds), Inside Information: British Government and the Media, Constable, London.

Wilkins L. (1987) Shared Vulnerability: The Media and American Perceptions of the Bhopal Disaster, Greenwood Press, New York.

Wilson D., (1984) The Secrets File, Heinemann, London.

Wynne, B., (1982) Rationality and Ritual: the Windscale Inquiy and Nuclear Decisions In Britain, British Society for the History of Science, Amersham, Bucks.

Wynne, B., (1987), Risk Communication for Chemical Plant Hazards in the European Community 'Seveso Directive' - some observtions based on comparative empirical studies, mimeo.

Yorkshire Evening Post (1984) Major Risk Sites: New Call for Less Secrecy, 15/1/84, 5.

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