An Taisce -- The National Trust for Ireland

Objection to EPA proposed decision for the Corrib Gas Refinery

Oral Hearing
at
Broadhaven Bay Hotel
Belmullet Co Mayo
18th April 2007

Presented by Leo Corcoran MBA CEng FIEI.

TD An Taisce

An Taisce – The National Trust for Ireland

- An Taisce works to achieve improved practices for the conservation of Ireland's built and natural heritage, and leave a better legacy for future generations.

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- An Taisce is the only independent, non-governmental body which is proscribed under the planning acts. The Environmental Education Unit runs a wide range of education and awareness-raising projects, including the Green Schools and Blue Flag programmes. Through our activities - participation in the planning process, public education, affiliation with other environmental NGO's, both at local, national and European level, An Taisce seeks to educate, inform and lead public opinion to promote sustainable development.

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Details of Objections 1

- Location within Water Catchment
- Total Site Located within 3 catchments Owenmore, Glenamoy & Coastal
- Footprint of Terminal located within Owenmore Catchment which provides the drinking water supply to 10,000 people in the Erris

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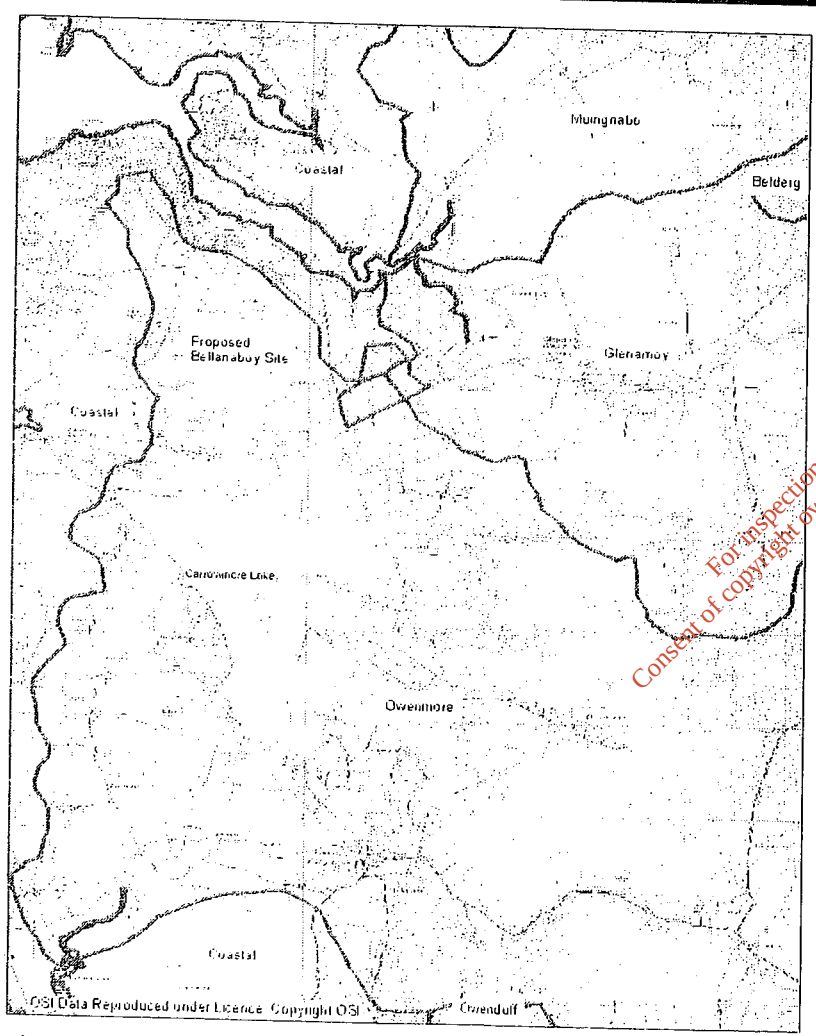
Detail of Catchments at Bellanaboy Site



- The Bellanaboy site shown in red (160 hectares)
- 3 catchments are outlined in Blue
- Owenmore to South and West
- Glenamoy to the East
- Coastal to the North

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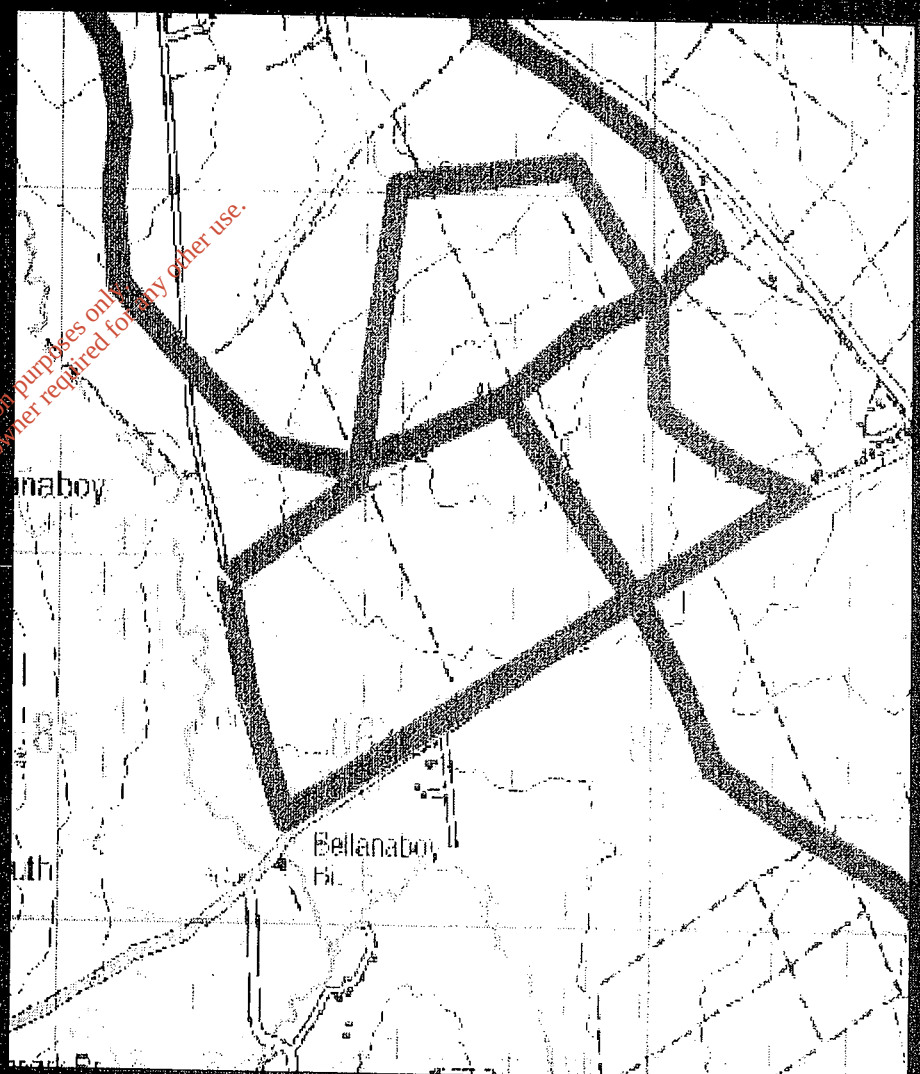
Bellanaboy – a bridge too far

Footprint of gas refinery (13 hactares) is located within the most sensitive catchment of Owenmore supplying drinking water to approx. 10,000 people



(details of water catchments provided by EPA GIS Unit on 3rd April 2007)

Martin Marsden Head of Water Policy Scottish EPA

Question

I would appreciate your view of locating a gas processing terminal similar to the facilities at St. Fergus within the catchment of a major water supply?

Answer

When consulted on the location of major industrial facilities, SEPA would normally recommend against placing such facilities at locations which could affect public drinking water sources.

Compliance with Code of Practice

An Taisce would recommend that the inspector appointed by EPA to conduct an oral hearing should established the facts regarding;

the advise if any obtained by the minister before he allowed Coillte to sell the Bellanaboy site to the developer,

advise if any received by the minister regarding the compliance of the site with the code of practice,

why a code of practice was not specified by the minister in his consents?

was compliance with the code of practice discussed at the ABP oral hearing?

what was the awareness of the Board of ABP regarding the compliance of the site with the code of practice?

and was the EPA inspector aware before she made her decision, that the Code of Practice was not followed in the site selection process?

Code of Practice PD 8010

From page 36 of PD 8010

7 Design — Stations and terminals

7.1 Selection of location

In selecting the locations for stations and terminals on land, consideration should be given to factors including, but not limited to:

a) topography;
b) ground conditions;
c) geohazards;
d) ease of access;
e) availability of services;
f) necessity for inlet and outlet connections to and from the pipeline;
g) hazards from other activities and adjacent property;
h) public safety and the environment;
i) anticipated developments.

Code of Practice PD 8010

- From page 113 of PD 8010
- ...F.2.2
- ***Environmental impact***
- Detailed assessments should be undertaken to ascertain the impact of the pipeline on environmentally sensitive areas. When selecting the route and station locations, care should be taken to identify and minimize any possible effects on:
- a) Ramsar sites;
- b) sites of special scientific interest (SSSIs);
- c) national parks and country parks;
- d) areas of outstanding natural beauty (AONBs);
- e) ancient monuments, archaeological and ornamental sites;
- f) **natural resources, such as catchment areas** and forests;
- g) flora and fauna;

(The Ramsar Convention is an international treaty for the conservation and sustainable utilization of wetlands, i.e. to stem the progressive encroachment on and loss of wetlands now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.)

Why should the developer adhere to a Code of Practice?

- "Transmission pipelines used by Bord Gáis Éireann are designed using IS 328. In the case of the Corrib onshore gas pipeline, BS8010 is used for the design code. IS 328 has been used as a supplement to BS8010 where it was considered beneficial. Design codes in general allow themselves to be supplemented by other similar codes where they are either silent or do not provide clear guidance. What is not normally permitted is for sections of one design code to be substituted by another one.
- The Corrib onshore pipeline has certain design considerations, which are unusual and unique both within Ireland and also within Europe, and for this reason there is no direct precedent. The design requires consideration to be given to the choice of design code best suited to the project. The Corrib export pipeline has, for the onshore section, an extremely high design pressure of 345 bar. Thus, the pipeline is well above the normal design pressure experienced for onshore distribution gas pipelines. This has resulted from the relatively rare occurrence where the pipeline is connected directly to the producing wells and not via an intermediate platform or processing facility as happens in most other cases." Minister for Communications, Marine and Natural Resources (Mr. N. Dempsey) Dail Eireann Thursday, 24 February 2005

Minister Dempsey continues.....

- "Since the onshore pipeline has no direct precedent either within Ireland or elsewhere for the reasons stated above, it is clear that strict use of the Irish design standard applied to all Bord Gáis Éireann transmission and distribution pipelines, IS 328, results in a design that is not optimised for wall thickness and less practical to construct.

- The Deputy is aware that an independent evaluation of the onshore pipeline design code was commissioned by my Department. This was carried out by Mr. Andrew Johnston, an experienced petroleum pipeline consultant. His report, Corrib Gas Pipeline Project: Report on Evaluation of Onshore Pipeline Design Code, was submitted to my Department on 28 March 2002 and its recommendations have been included as conditions attaching to the consent to construct pipelines issued in April 2002.

- Mr. Johnston concluded as follows: the pipeline design code has been selected in accordance with best public safety considerations and is appropriate for the pipeline operating conditions; the design of the onshore pipeline is generally in accordance with code selection and best national and international industry practice, provided that the actions recommended in section 2.2 of his report are followed; the pipeline is considered to be adequately protected from third-party interference by burial to 1.2 m and provision of marker tape above the pipeline; and the pipeline is considered to meet public safety requirements as outlined in the selected design code, provided that the actions recommended in section 2.2 are followed. As stated above, the recommendations of section 2.2 have been incorporated in the statutory approvals issued for the Corrib pipeline development...."

Minister Dempsey did not say

- Uniquely for a high-pressure gas pipeline, a code of practice was not specified by the minister. Likewise, the consent given under the foreshore licence for the offshore section of the upstream pipeline does not specify a code of practice.

- As the regulator the minister would have known that the consent signed by his predecessor did not contain a code of practice, as such the consent is essentially void since it is not possible to legally enforce the provisions of the code of practice unless the code is mandated within the letter of consent.

Ministers consent unprecedented..

- No other country in Europe would consider granting a consent for a pipeline without mandating a code of practice.

In the UK all consents must contain a code of practice. the regulator in the UK, Mr Gary Mohammed stated in an email to the author on 29th March 2007.

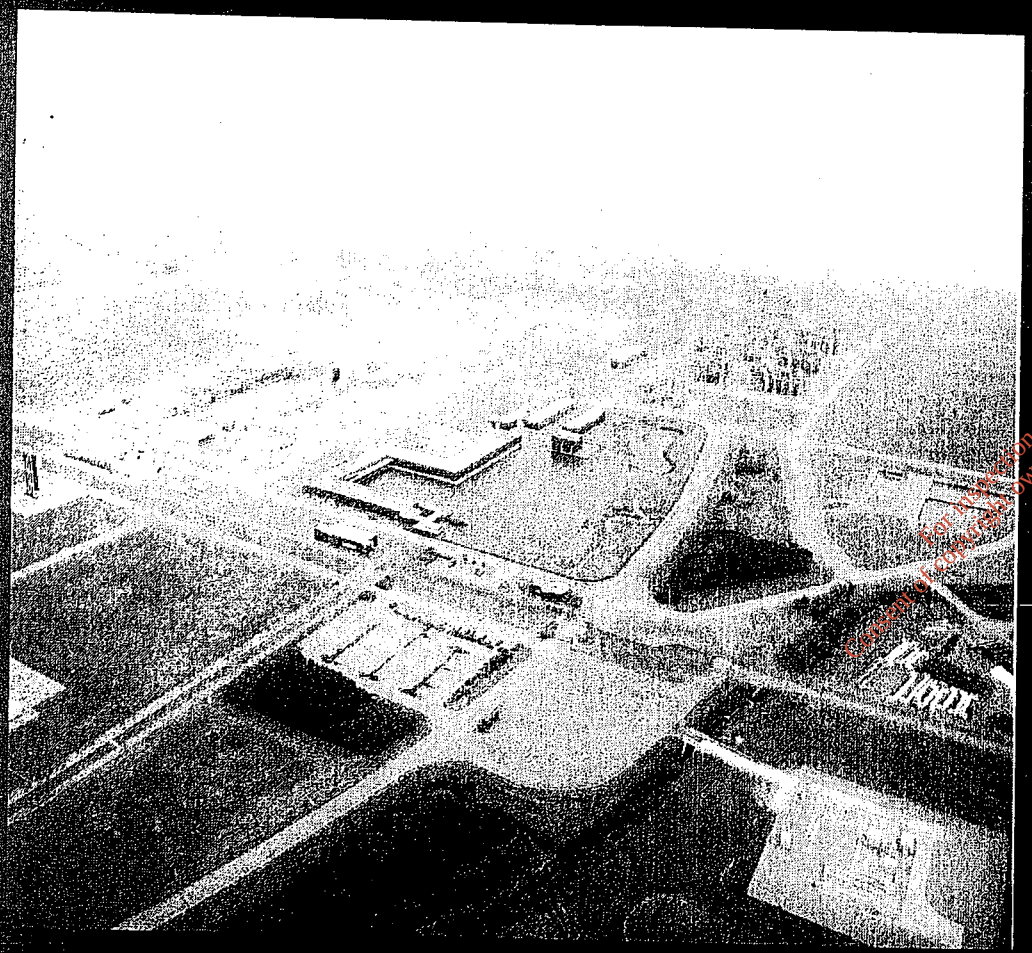
"All energy infrastructure has to comply the appropriate Regulations and where applicable best practice (whether that be a Code of Practice or whatever). Example - design being in accordance with IGE standards."

Code of Practice should be mandated in a pipeline consent

Regulators in all developed countries mandate codes of practice in granting consents to build energy infrastructure, because the consequences of a failure can be catastrophic and it would not be considered prudent or safe to allow a developer to build and operate the infrastructure without such a requirement.

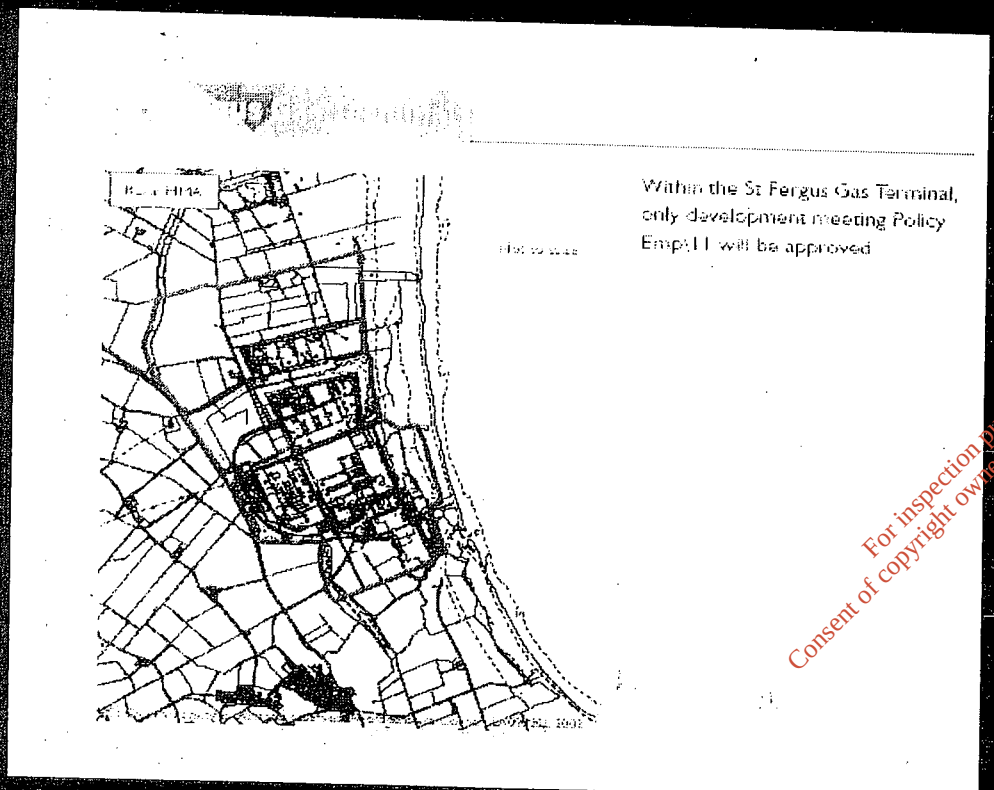
The Regulator in Ireland, the Minister, was inadequately attentive to his regulatory duties in signing consents with did not mandate a code of practice.

In Conflict with Best Available techniques BAT



- St Fergus site is the reference or Benchmark site for the EPA inspector.
- St Fergus is outside water catchments and is in close proximity to the coastline

St Fergus Site is Nationally Designated Policy Emp\11



- *Policy Emp\11*
- **Major Oil and Gas Sites**
- Oil and gas related development within St. Fergus Gas Terminal or on land allocated for related development will be approved, in principle. Non oil and gas related development in or adjacent to these two sites will be approved, in principle, if it is ancillary to their operation.

Recommendation for Buncefield Report

Recommendation 17

The Competent Authority and the sector should jointly review existing standards for secondary and tertiary containment with a view to the Competent Authority producing revised guidance by the end of 2007.

The review should include, but not be limited to the following: developing a minimum level of performance specification of secondary containment (typically this will be bunding);

developing suitable means for assessing risk so as to prioritise the programme of engineering work in response to the new specification; formally specifying standards to be achieved so that they may be insisted upon in the event of lack of progress with improvements; improving firewater management and the installed capability to transfer contaminated liquids to a place where they present no environmental risk in the event of loss of secondary containment and fires; providing greater assurance of tertiary containment measures to prevent escape of liquids from site and threatening a major accident to the environment

Recommendation from Buncefield Report

Recommendation 25

In particular, the sector should draw together current knowledge of major hazard events, failure histories of safety and environmental protection critical elements, and developments in new knowledge and innovation to continuously improve the control of risks. This should take advantage of the experience of other high hazard sectors such as chemical processing, offshore oil and gas operations, nuclear processing and railways.

Recommendation from Buncefield Report

High reliability organisations (Recommendations 19-22)

A 'high reliability organisation' (HRO) is a robust organisation with a strong safety culture that has a high probability of achieving safe, reliable and quality performance over a long period of time.

Background

Since the early 1980s studies have been made of organisations that operate 'high-hazard, low-risk' technologies at very high levels of reliability;(refs 10-13) examples are in the air traffic control sector, and on aircraft carriers. The manufacturing and banking sectors also contain examples of companies that have elected to build HROs that are significantly in advance of their peer groups. The studies show that safe operation is not just a matter of compliance with various regulations, codes and standards, but also crucially depends on organisational design and culture. HROs have developed a culture of reliability to drive the business (including high productivity), without sacrificing the drive for improvement or the capability to change.

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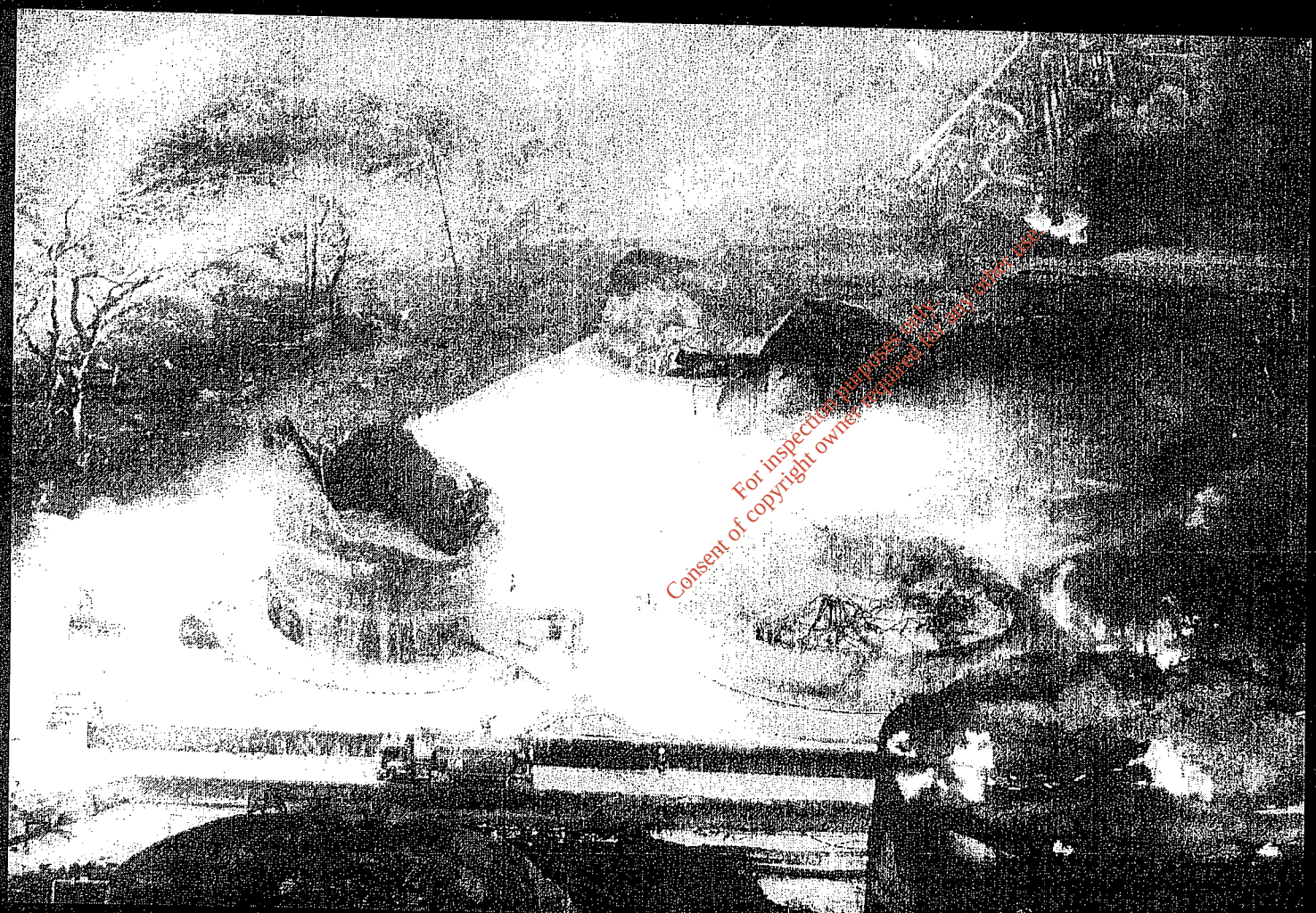
Buncefield Reports that groundwater was contaminated



Comparison of Shell Safety record with other majors

Fatalites per annum

Company	2003	2004	2005	2006
Exxon Mobil	23	6	8	10
Shell	45	37	36	37
BP	20	11	27	7

Shell and BP are approx same size

source www.royaldutchshell.com (Dissident Shell Shareholders website)

Shell's North Sea Safety Improvement Notices
Fit & Proper Person Assessment

" the HSE website shows Shell was issued with 10 improvement notices during 2006, although one referred to an onshore facility at St Fergus in Scotland. Notices are served where the HSE considers a company is operating unlawfully with unacceptable risks, according to industry experts. The regulator's website suggests that Shell has been served with 42 notices since 1999, while BP, a company of similar size, has received 25."

Monday March 5, 2007
The Guardian

Extracts from the Baker Report into the safety of BP's US plants

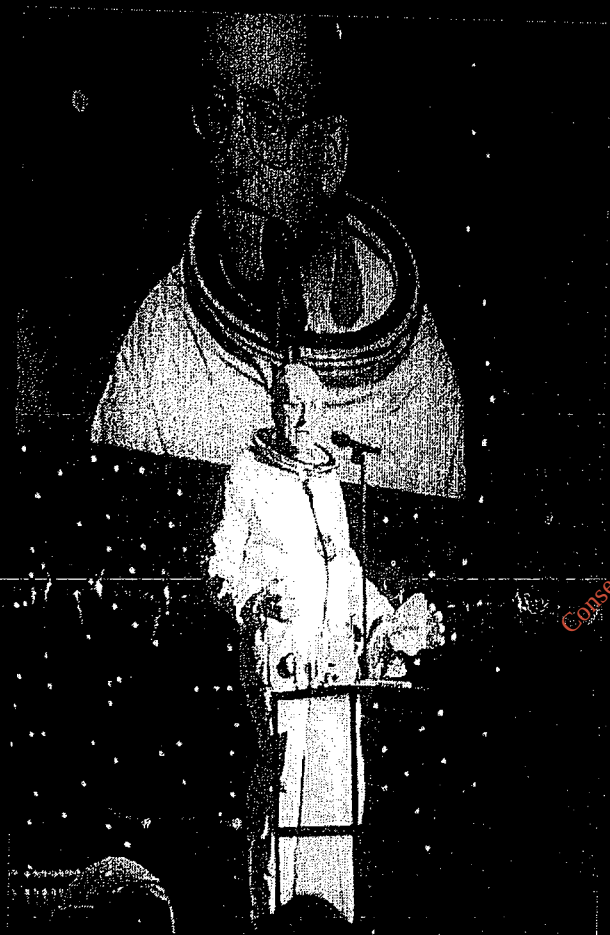
CORPORATE SAFETY CULTURE:

Process safety leadership: The Panel believes that BP has not provided effective process safety leadership and has not adequately established process safety as a core value across all its five US refineries.

While BP has an aspirational goal of "no accidents, no harm to people," BP has not provided effective leadership in making certain its management and US refining workforce understand what is expected of them regarding process safety performance.

BP did not emphasize process safety. BP mistakenly interpreted improving personal injury rates as an indication of acceptable process safety performance at its U.S. refineries.

Shell's poor safety record emanates from its flawed leadership Fit & Proper Person Assessment

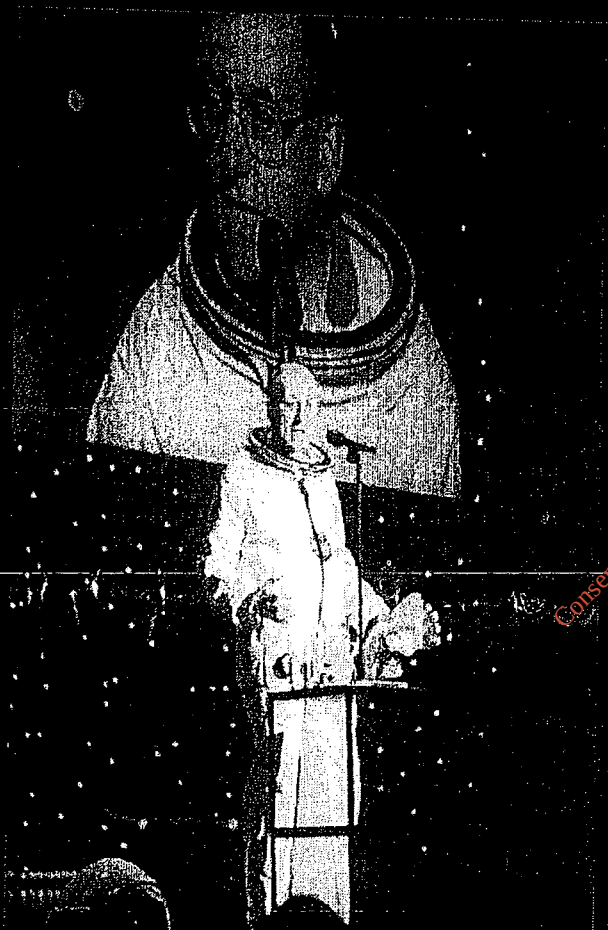


Sir Philip Watts

Shell Chairman 2001 – 2004 during key stages of Corrib Project

Less than three years after taking over the chairmanship Sir Philip was forced to resign in early 2004 by revelations that the company had overstated its proven reserves by nearly 25 percent.

Shell's poor safety record emanates from its flawed leadership Fit & Proper Person Assessment



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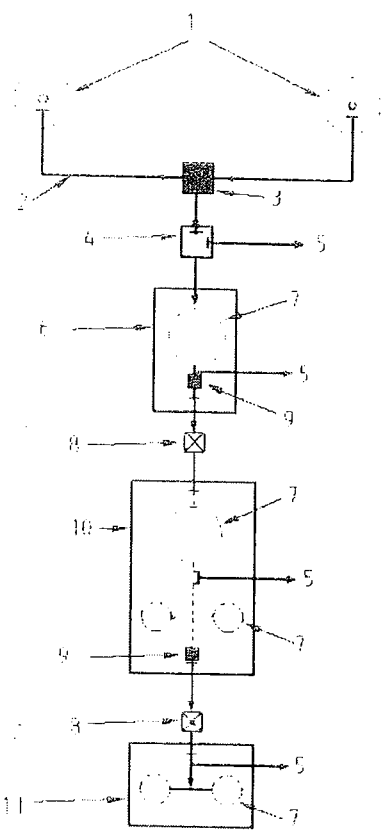
Scope of PD 8010

Annex A (informative)
Extent of pipeline systems for conveying oil and gas that are covered by this part of PD 8010

Figure A.1 shows the full range of onshore oil and gas pipeline systems covered by this part of PD 8010.



Key
1 Wellheads
2 Flow line
3 Gathering station
4 Separation plant
5 Distribution
6 Terminal with storage and pump or compressor station
7 Storage
8 Intermediate facility
9 Pump or compressor facility
10 Process plant with storage and pump or compressor station
11 Terminal with storage
Pipeline system covered by PD 8010-1
Pipeline and facilities not covered by PD 8010-1
Pigging facilities
Intermediate station pump, compressor, valve, pressure control, heating or metering station, etc., not covered by PD 8010-1
Pump, compressor or gathering station covered by PD 8010-1

Figure A.1 — Extent of pipeline systems for conveying oil and gas that are covered by this part of PD 8010

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Summary

Site selection process not in accordance with Code of Practice
Footprint of terminal located within the most sensitive segment of the site
Bellanaboy not comparable with St Fergus
Code of Practice not mandated for this project
Scottish EPA do not recommend site location within catchment
UK Regulator mandates Code of Practice.
Accident reports confirm the requirement to comply with codes of practice
High Hazard sites require High Reliability Organisation
Shell has poor safety record

EPA should refuse this licence application