# STATES OF JERSEY

# COMMITTEE OF INQUIRY: TOXIC INCINERATOR ASH DUMPING IN THE ST. HELIER WATERFRONT LAND RECLAMATION SCHEMES (P.96/2008) – COMMENTS

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**Presented to the States on 7th July 2008**
**by the Council of Ministers**

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**STATES GREFFE**

## COMMENTS

The land in question is known as the West of Albert Reclamation Sites I and II. The filling of the West of Albert Reclamation Site I commenced in May 1985 at the corner nearest to the old slaughterhouse. Tipping was confined to a narrow heading behind the Albert Pier seawall to make access to the proposed new Elizabeth Harbour Scheme. Ash from the incinerator plant was tipped with inert materials in a co-mingled fashion. When it became apparent that the access road and working area for the new Elizabeth Harbour would not be completed in time, further inert material was sourced and imported into the site. Filling of the inert and co-mingled ash material then proceeded in a westerly direction within the site boundary.

In September 1987 changes were made to the method of disposing ash within the site and the ash was then confined to the top 2 metres of fill to ensure it was in a position that was above mean high water spring tide level.

The decision to change the way in which ash was disposed of was brought about as a result of a report prepared jointly by the previous Environmental Advisor to the States and the old Resources Recovery Board in 1987. In addition, the previous Agriculture and Fisheries Committee, Sea Fisheries section, also identified that under Article 3 of the Sea Fisheries (Miscellaneous Provisions) (Jersey) Regulations 1974, incinerator ash could not be deposited into an inter-tidal zone.

As a result of these interventions, the then Resources Recovery Board changed the way in which it disposed of incinerator ash by disposing of ash only to areas that were above mean high water spring tide level in the first instance, and then later, by digging ash pits in the reclaimed land that was not considered to be tidal and depositing ash in discrete pockets within the site.

Records indicate that from 1987 onwards, significant concerns were being expressed as to the way in which incinerator ash was being managed on site and the potential toxic effects it could have on the surrounding environment, as well as on members of the public.

The disposal of ash into the West of Albert Phase 1 scheme raised concerns with States members in the early 1990s, and it is clear from reports that the level of concern increased significantly from 1993 onwards, resulting in various political groups and States Committees starting to address the question of disposal of ash into the environment.

The first major report undertaken to review the methods adopted for disposing of incinerator ash was in 1995, commissioned by the Planning and Environment Committee. This report, prepared by consultants, Environmental Resources Management (ERM) provided an assessment and review of the levels of contamination and potential remediation options for the West of Albert Phase I scheme.

The Planning and Environment Committee also used the ERM report to consider the licensing arrangements for the safe disposal of incinerator ash into the La Collette Phase II reclamation site which opened in 1995. From this point on, all ash has been contained within lined and sealed pits on the La Collette Phase II reclamation site.

In 1995 the Waterfront Enterprise Board commissioned reports on the condition of the West of Albert site prior to development commencing, and further studies were undertaken to determine the impact of any potentially toxic materials leaching from the West of Albert land reclamation site into the marine environment. Numerous reports have been compiled for the Waterfront Enterprise Board and all States Departments associated with either the operation or regulation of waste sites.
(See Appendix 1 for list of reports).

**Health and Safety Comment:**

It is accepted that the manner in which incinerator ash was disposed of on the Waterfront site was not managed appropriately, resulting in the potential for operatives subsequently working on the site to be exposed to risks to their health when uncovering or working with the material. The legal requirement under the Health and Safety at Work (Jersey) Law 1989 for ensuring that employees are not exposed to risks to their health is primarily placed on their employers.

When concerns over the manner in which employees were working with ash material was raised with the Inspectorate in 2000, action was taken, in conjunction with other States Departments, to address concerns over the potential exposure to incinerator ash disposed of on the Waterfront site, through a multi-agency approach. This multi-agency approach is currently co-ordinated through the requirement placed on developers of land at the Waterfront Site for an Environmental Impact Assessment.

The Inspectorate is therefore satisfied that developers involved with the Waterfront site are made aware of the potential for uncovering incinerator ash, and that contractors in control of site operations are aware of the standard expected of them to control the potential health risks to operatives working on the site. It is still the situation, as with every health and safety requirement, for contractors to ensure that the procedures which have been put in place are strictly adhered to at all times, and that employees abide by instructions and site rules which are in place.

**Health Protection Comment:**

The issues relating to the marine reclamation at the Waterfront West of Albert site have been subject to considerable multi-disciplinary investigation and response to the Senator and others since 2001. Senator Syvret, as the President of Health and Social Services, in February 2002 was provided by the Medical Officer of Health, Dr. John Harvey, with a full and frank response to questions relating to the disposal of ash at the Waterfront; its potential to impact on the marine environment into the future; its potential to impact on the health and well-being of end users of the site; the potential for impacts on the health and well-being of workers, both those involved in the deposit of ash and those working in the construction industry. (See Appendix 2 for a list of Questions and Answers.)

It should be remembered that in terms of the wider impacts on the health of the population there were few Laws and Regulations governing this type of activity. The Statutory Nuisances (Jersey) Law was introduced at the end of 1999 and the Water Pollution (Jersey) Law was introduced in 2000. There was less cross-cutting activity between States Committees before 2001 and it is a fact that the then Public Health Service/Environmental Health Department were not party to the design and management of the reclamation activity prior to 2001.

Hindsight allows us a unique opportunity to reflect on the actions of previous administrations. It is accepted that between 1986 and 1995 the deposit of ash by co-mixing with inert waste at the Waterfront West of Albert marine reclamation site was not undertaken in a manner that would comply with today's strict requirements for the protection of health and the protection of the marine environment.

From 1995 to the present day, the activity of disposal of ash is into specially lined pits above Mean High Water Spring Tide Level, designed to minimise escape of leachate from the material into the marine environment and to help prevent washout of toxic material from the fill from tidal activity. Since 2002 there has been enacted a multi-disciplinary approach to the issue of contaminated land.

As a part of the Planning regime for redevelopment, contaminated sites across the Island, not just on the Waterfront, have been subject to monitoring, review and assessment. The Health Protection Service is satisfied that appropriate levels of management and control of activity during redevelopment are undertaken, and that developers and contractors comply with current international standards of best practise, thereby minimising the risk of a pathway for contaminants to end users of the sites. The redevelopment of the Waterfront has resulted in large volumes of contaminated material being removed from the site and deposited in lined pits at La Collette above Mean High Water Spring Tide Level, thereby removing the continued risk of interaction with the public or the marine environment in the waterfront area.

**Current position:**

It is clear that the approach taken for the disposal of incinerator ash in the late 1980s and early 1990s would not be acceptable today. This fact has been recognised and addressed through the multi-agency working group and following this inter-departmental working, the Planning and Environment Department now has a better working knowledge of areas of land contamination on the Island. As part of the planning process, the extensive use of

Environmental and Health Impact Assessments are used today to ensure that future development addresses the potential contamination of land as part of any planning application. In addition, the regulatory roles are now in place for Environment, Health Protection and Health and Safety, providing a clear boundary between regulator and operator, be that operator a States department or a third party.

**What will a Committee of Inquiry achieve?**

In Senator Syvret's proposition, the conclusions set out what the Committee of Inquiry aims to achieve.

*"We need to know –*

*Why that happened?*

*How it was able to happen?*

*Who was culpable?*

*Why did such a complete breakdown of checks and balances occur?*

*What lessons need to be learned?*

*What action we may need to take to remediate the site?*

*What action we may need to take to examine, on a long-term basis, human health risks and impacts?*

*What action we may need to take to prevent the many tens of thousands of tonnes of toxic ash escaping into the marine environment in the event that the reclamation sites become eroded, or threatened by rising sea levels and increased wave action as a result of global climate change?*

*These are just some of the questions which must be answered."*

The vast majority of these questions were addressed in 2002 when the Medical Officer of Health prepared a response to a series of questions posed by Senator Syvret. From 2002 onwards, surveys of the site have been undertaken by WEB and reports prepared by the Health Protection Department, all of which assessed the current levels of contamination within the site, the proposed method of removal/remediation, the risks to human health and the groundwater risks associated with ash contained in the site.

A Committee of Inquiry will be able to review the history of ash disposal, the historical and scientific data from the numerous reports already prepared; however, from all of the work undertaken in the period of 1995-2004, this has already been achieved. Whether or not anyone is culpable would be a matter for a Committee of Inquiry to establish although from the review of records all those concerned in the historical disposal of ash have now retired from the service.

**Financial and manpower implications:**

The Proposition is vague as to costs and manpower implications. It identifies a requirement for 50% of a Grade 10 Civil Service Clerk which is assumed to be the manpower required to provide a Committee Clerk. Given that Senator Syvret acknowledges that this Inquiry will be akin to a more serious Committee of Inquiry, and identifies the Building Costs and Bus Tender Committees of Inquiry which took 45 months and 9½ months respectively to complete, the allocation of 6 months for a Clerk is unrealistic.

Membership of the panel would be critical if the Committee of Inquiry were to proceed, as it would be dealing with extremely complex scientific evidence. The costs of experts to undertake this type of review would be very high and it is unlikely that they would be available at less than £1,000 per day plus expenses.

The requirement for expert witnesses/specialist advisers to review the numerous reports and provide scientific evidence to an Inquiry would also be significant; and if extended over many months would be extremely expensive, as experts in this field will also cost in the order of £1,000 per day plus expenses.

If the States were to approve such an Inquiry, it should be prepared to set a realistic budget of between £250 – 300,000 for a review of this complexity.

Given the levels of co-operation now in place and the regulatory framework under which all current and future developments are assessed, the value of a Committee of Inquiry is considered to be extremely limited, and will only serve to rake over old ground, all of which has been well reviewed and procedures put in place to ensure any previous failings did not occur again.

**Comment of the Council of Ministers:**

It is abundantly clear that much research has been undertaken and much knowledge gained concerning the safe management of incinerator ash and its disposal. It is also clear that standards have changed over time and the original methods employed for disposing of ash were not adequate.

The standards, protocols and regulations now in place provide the Island with the security it needs to be confident that any further excavation within the West of Albert reclamation site will be well managed and regulated.

Therefore, the Council of Ministers does not support the proposal for a Committee of Inquiry as outlined in Proposition P.96/2008: Committee of Inquiry: Toxic Incinerator Ash Dumping in the St. Helier Waterfront Land Reclamation Schemes.

**APPENDIX 1**

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| March 1995 | ERM | Current and Future Management of Ash From Municipal Solid Waste Incinerator |
| August 1995 | CREH | The Leaching of Cd and Hg From Samples of Incinerator Ash from Municipal Waste: Literature Review and a Reconnaissance Study of Leaching from Jersey Municipal Fly Ash |
| November 1995 | WRC | Assessment of Reclaimed Land at St. Helier |
| November 1995 | WRC | Contaminate Status of Fill Materials |
| October 1997 | CREH | Trace Element Chemistry of Modern and Archaeological Limpet Shells from Jersey and Environs |
| November 2000 | Chief Environmental Health Officer | Health Impacts of Municipal Waste Incineration – Incinerator Ash Disposal |
| September 2001 | MOH | Report to Public Health Committee – Health Impact of West of Albert Pier Reclamation Site |
| August 2002 | CIRS | Incinerator Ash Disposal Site Near Albert Pier |
| October 2002 | WRC | Review of CIRS Report |
| December 2002 | WRC | Jersey Ash Fill Characterisation 2002 |
| May 2004 | WRC | Human Health Risk Assessment of Soil on The West of Albert Reclamation Site |
| May 2004 | WRC | Survey Report of Research of West of Albert Reclamation Site |
| June 2004 | WRC | Ground Water Risk Assessment on The West of Albert Site, St. Helier |

**PUBLIC HEALTH SERVICES**

**Contaminated sites**

**RESPONSES TO Sen. Syvret's questions**

(i) *Was it accepted that the combined ash from the island's municipal waste incinerator contaminated many parts of the St. Helier waterfront site?*

The West of Albert land reclamation operation was undertaken initially by the mixing of combined incinerator ash and inert waste at the point of disposal until 1987 when a legislative review prompted a change in disposal practise. Thereafter the incinerator ash was singularly deposited in a number of pits above mean high water mark at varying points across the reclamation site.

(ii) *Was it accepted that the combined incinerator ash contained a variety of known human health hazards, including carcinogens and endocrine disrupters; for example cadmium, lead, mercury, zinc, copper Dioxins furans, PCBs etc?*

Fly ash from Municipal Waste incineration contains heavy metals, dioxins, and furans. These products, which have varying levels of toxicity peculiar to the respective material, are proven to have an adverse affect on human health. Monitoring data for the Jersey incinerator, obtained in 1993 by Warren Spring Laboratory, confirms the presence of these materials both in fly ash and combined ash.

The main reference document for analysis of this ash, in the context of the disposal of ash at the West of Albert site, is a report compiled by consultants, WRc Alert in November 1995. This report refers to analysis undertaken in April 1995 and September 1995 at a number of locations including fresh material, stockpiled ash and material which had been in the ground for varying periods of time[1]. The analysis identified a range of heavy metal contaminants including Arsenic, Mercury, Copper, Nickel, Zinc, Cadmium, Lead and Chromium. These types of contaminant fit the profile of expected contaminants arising from an incineration process[2].

It would appear that this report did not carry out an analysis of waste ash material for the presence of certain other contaminants, i.e. dioxins, although other analysis of ash material has been undertaken.

(iii) *Was the ash a threat to the health of those who had been, or might have been exposed to it?*

The toxic element associated with fly ash is mainly retained in the fine particulate fraction of the ash. There is a risk of ingestion, inhalation or absorption of this material into the human body if a person comes into direct contact with the ash, whether as a consequence of the handling, transport, deposit or excavation of the material, or the result of fugitive emissions from site.

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[1] WRc Ref:CO 4028/1 Table 7, November 1995

[2] Table 3.4, Report 132, A guide for safe working on contaminated sites, Construction Industry Research and Information Association, 1996

(iv) *If it was accepted that the ash was a human health hazard, was this new knowledge or had it been ascertainable from the beginning of the dumping?*

The harmful health effects of heavy metals have been known about, and has been well documented for more than a century. The body of knowledge of dioxins, furans and PCBs is far more recent, from around 1980, although the ability to accurately measure and quantify their long term health effects is continuing to be explored. It is considered that at present there is no certain safe lower limit for exposure to these materials, which bio-accumulate in the environment and the body, but tolerable daily intake levels have been defined by the UK Department of Health and the World Health Organisation. The current quoted emission limits from combustion processes can be quantified as the lower limit of detection of these materials.

(v) *Was it accepted that many - mainly construction - workers had been exposed to the ash with, until recently, no health and safety protection; for example, those who built the underpass?*

It is apparent that the analysis which was carried out by WRc identified a range of toxic contaminants which are associated with potential ill health effects to persons exposed to the ash material[3]. However, it should be noted that, due to the nature of the waste management process, the amounts of contaminants in the material will vary, depending on the composition of the waste which was incinerated.

In considering the potential for occupational exposure, it is recognised[4] that individual exposure may be through a number of paths including skin absorption, skin penetration, ingestion and inhalation. Landfill on the West of Albert site is believed to have commenced in 1986, with records of construction and civil engineering projects commencing in 1985 and continuing to the present day. There may therefore have been a potential for occupational exposure to the ash material at the West of Albert site since 1985 with the potential groups of workers at risk including those carrying out landfill operations, site investigation and ground works.

It is not however possible to state with any certainty whether or not such workers received significant occupational exposures for a number of reasons:

- As noted, the presence and level of contaminants will vary depending on the composition of the material,
- The site was also used for the deposit of inert materials with ash material forming only a part of the total material deposited. There was therefore not a continuous consistent potential for exposure,
- Weather conditions may have assisted in reducing the potential for exposure to dusts,
- Possible protective measures to prevent exposure to the ash material include the wearing of personal protective equipment and good hygiene facilities. Such measures may have been in place on the various projects carried out on the site,
- lack of air monitoring carried out prior to the Spie Batignolles Camerons development, which may have assisted in identifying the potential for airborne contaminated material, and
- lack of information about any individuals reporting ill health effects from working with the material.

[3] Table 3.6, Report 132, A guide for safe working on contaminated sites, Construction Industry Research and Information Association, 1996

[4] HS(G) 66, Protection of workers and the general public during the development of contaminated land, Health and Safety Executive, 1991.

It is concluded that the potential for occupational exposure to contaminated material was present on the West of Albert site, however, it has not been possible to determine whether individuals have suffered any ill health effects from this potential for exposure.

(vi) *Was it accepted that dust contaminated by the ash could become airborne and thus form an inhalation and ingestion pathway to people both on the site and beyond its bounds?*

During handling, transport, deposit and excavation the ash material has been found to be in an homogenous damp condition, and therefore the ability for fines from the material to be liberated and become airborne is limited. However, the subsequent piling operation at the Waterfront site saw the aerosol dispersion of liquefied fines material both on and off site and in to adjacent premises. The subsequent drying out of this material along with any material brought off site by vehicle tyres, chassis bodies and site operatives could result in fugitive emissions of fines when dry, with the potential to be carried by strong winds and passing traffic over an extensive area. It is impossible to quantify either frequency or exposure. The risk is believed to be very small.

(vii) *Was it accepted that the ash was dumped extensively throughout the reclamation sites and that during dumping no satisfactory record or map of the dumping had been kept?*

When the site first opened in 1986 the ash was co-mixed with incoming inert material as the site filling progressed. In 1986, the method of filling changed and the ash was placed only above mean high water spring level. The filling procedure was further changed in 1995 when the ash was deposited, unmixed, in designated pits and within specific areas of the site thereby concentrating its location and leaving areas of the site free from any ash deposits. No formal record or map was kept in the early days, but the dumping was restricted to a small part of the site.

From the beginning of its involvement WEB has adopted a cautious and independent approach. It has had to do so because investors would not be prepared to rely solely on the reassurances of the States who carried out the fill operation and who, in the eyes of the investors, have a vested interest. In 1995 therefore, WEB commissioned WRc Alert to investigate the whole of the West of Albert site in order to provide information on the scale and nature of the infill. This detailed report identifies the extent of the contamination and other geotechnical issues arising from the method of infill adopted.

Every developer on the Waterfront has been given a copy of the WRc report. Each developer has had to satisfy itself as to the suitability of the site for its intended purpose. Neither the States or WEB warrant the suitability of the site. The developer has then had to provide a method statement detailing how the ash will be managed This method statement is built into the contract.

Even where the States are their own developer, as in the case of the Albert Pier Housing, the WRc Alert report has been provided to our independent engineering consultants who must then form their own view, take their own samples and recommend their own method for dealing with the contamination issues. The recommended methodology then forms part of the contract.

In this way, whether the site is being developed for public or private use, the responsibility and the liability for insuring that the issues of site stability and contamination are addressed rests with the developer and the
design team and not the States.

(viii) *Was it accepted that the site would be classified as contaminated land in the United Kingdom?*

The Waterfront land has been used for the deposit, by burial, of concentrated incinerator ash and asbestos cement in numerous areas across the site for which there is no accurate record of deposit. This material has contaminants at levels above the recognised standards for contaminated land such as UK ICRCL and Dutch Intervention Standards. The UK definition of contaminated land as included in section 147 Environmental Protection Act 1990 as amended by the Environment Act 1995, is "any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in on or under the land that: (a) significant harm is caused or there is significant possibility of such harm being caused; or (b) pollution of controlled waters is being or is likely to be caused" Harm can be caused : to humans, to ecological systems, to buildings or to livestock or crops.

The whole Waterfront site would fall within the definition of contaminated land as described above. However there has been clear delineation of the site into discreet development areas, and these would have to be treated as separate sites for the purposes of such classification.

(ix) *Was the States of Jersey legally, morally or ethically culpable for the health hazard and environmental threat posed by the site and had the States breached a duty of care by allowing this situation to develop?*

(to be answered by the meeting of Presidents)

(x) *Did the marine pollution threat posed by the site breach previous and current water pollution laws?*

Since 1979, the Public Services Committee has administered 2 laws that deal with water pollution of environmental waters. They are the 'Sewerage (Miscellaneous Provisions) (Jersey) Law, 1979' and the 'Water Pollution (Jersey) Law, 2000.'

The Sewerage (Miscellaneous Provisions) (Jersey) Law, 1979 gave effect to the Convention for the prevention of Marine Pollution from Land-based Sources, which had been signed by the UK Government in 1974. It introduced a system of licences to control the discharge of sewage, trade effluents and certain prescribed substances into the sea. (This Law was repealed on the enactment of the Water Pollution (Jersey) Law, 2000 on the 27 November 2000.)

Under Article 2(1) of this Law, it was an offence for any person who discharged or caused or permitted to be discharged onto the seashore or into the sea or into any watercourse which drained into the sea by any means whatsoever any substance mentioned in Part I, II or III of Annex A of the Convention. Annex A prescribed substances including organo-halogen compounds and certain metals that are present in incinerator ash.

However the Law was flawed, impossible to administer and was totally ineffective in pollution control. It was repealed upon introduction of the Water Pollution (Jersey) Law, 2000, which came into force on the 27 November 2000. This Law provides for the control of pollution in Island waters and the implementing of provisions of the Convention for the protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention) concluded in Paris on the 22 September 1992. In this Law, 'controlled waters' include the Island's coastal waters and territorial seas up to the 12-mile limit.

In this Law, 'pollution' includes the introduction directly or indirectly into controlled waters of any substance, or energy, where its introduction results or is likely to result in a hazard to human health or water supplies, harm to any living resource or aquatic eco-system, damage to any amenity or interference with any legitimate use of controlled waters. This definition is almost identical to the wording in the OSPAR Convention.

This Law has proved to be effective in pollution control and several case files have been submitted to the Attorney-General's office, which have resulted in successful prosecutions.

None of the data that has been accrued to date from the comprehensive monitoring programmes that have been carried out over many years has convinced officers of the Water Resources Section that pollution of controlled waters, as defined in this Law, has occurred as a result of the deposition of incinerator ash in the La Collette Reclamation Site. However, it is accepted that some of the components of the ash must have leached and continue to leach out of the site, but there is a huge dilution factor in the sea.

In carrying out its functions under this Law, the Committee must have regard, as far as is reasonably practicable, to the best techniques that are for the time being available and the best environmental practice that is for the time being recognised, a precautionary principle in respect of pollution and a cost principle in respect of pollution.

It would not be appropriate for the Committee to issue a Discharge Certificate under Article 26 of this Law for the operation of the reclamation site. However, a Waste Management Certificate will be needed under the proposed Waste Management (Jersey) Law, which will set out standards for 'environmentally sound management of waste', which is a requirement of the Basel Convention.

[ Note: Under Article 5(a)iii of 'The Food and Environmental Protection Act 1985 (Jersey) Order, 1987, which is administered by the Harbours and Airport Committee, a licence is needed for the deposit of substances or articles with the Bailiwick either in the sea or under the seabed from a structure on land constructed or adapted wholly or mainly for the purpose of depositing solids in the sea. The need for a licence will depend on the definition of 'sea' and what is meant by a structure. Advice on this is obtainable from Jersey Harbours.]

(xi) *The report by ERM suggested the possibility of increased leachate from the site in the future due to the changing pH levels. If this occurred would it pose a threat to the south-east coast and fishing in the area given the possible release of significant quantities of toxic heavy metals, for example cadmium?*

This will always be a possibility. However the process would be a slow one and with the levels of ash remaining in the site at this stage (even at the beginning) the rate of leaching would be such that no human health risk would arise. Dilution in the sea would be considerable and even marine organisms would be unlikely to ingest toxic levels. Current monitoring provides a means of assessing this (potential) process at all times.

(xii) *Notwithstanding the known marine pollution potential of the ash, why had infill excavated from the West of Albert site, contaminated with the ash, been dumped with the ordinary infill into the tide permeable land reclamation tipping zone of the La Colette 2 site?*

This has not occurred. Any fly ash contamination moved to La Collette has been placed in specially constructed containment structures.

(xiii) *Did the dumping of the ash in a tide permeable site, and consequently the possible release into the marine environment of many of its hazardous components, put the Island in breach of international obligations; for example, OSPAR?*

No. OSPAR does provide for best environmental practice procedures to be adopted, e.g from 1987 all ash was dumped above the mean high water level.

(xiv) *What were the hypothetical 'legal' grounds for not having a public register of contaminated land?*

P&E Officer discussions on contaminated land policy and response have included the possibility of the Department drawing up a list of known and potentially contaminated sites.

Applications for the development of land are currently checked against spatial data such as Island Plan Zones and other relevant land-use designations. Sites where contamination may be a hazard and could be checked in this way and, if necessary, appropriate action taken.

However it was also identified that some careful thought would need to be given to how this is implemented to ensure that the Committee was not placing itself in a difficult legal position by gathering and holding such potentially contentious information.

It was felt that the principal risk would be the potential for legal action based on unfair devaluation of private land due to incorrect or unjustified registration of land as 'contaminated'.
We were also conscious that the UK contaminated land register, which all Local Authorities were required to draw up under Section 143 of the 1990 Environmental Protection Act, was withdrawn for a number of reasons including the potential problem of property blight.

One solution considered was for the Department to maintain this information on a confidential basis. This was thought to be inappropriate as it is likely to be the type of information that we would be duty bound to share under the Code of Practice on Access to Official Information. It was also suggested that the Department might be obliged to make the information available when responding to legal search requests on property.

It was felt that the potential problems identified were not insurmountable but it would be prudent to seek legal advice to be sure that the implications of setting up a register or inventory were clear and that proper safeguards were in place to avoid such complications.

This advice has recently been received from the Solicitor General. The indications are that the problems can be overcome through use of suitable legal disclaimers. It was also made clear that careful thought would need to be given to how sites were classified, on what grounds, and the source of the information used.

The options will continue to be explored through the current Officer working group.

(xv) *What was meant by public access to 'relevant information about contaminated sites'?*

Clearly there are situations where certain information is deemed inappropriate for the wider public domain. This is especially true for information related to human health or the wider environment where often data needs to be interpreted carefully and with scientific rigour to avoid incorrect conclusions being made over risks.

The legal advice received on the implications of operating a register system has confirmed that the form it takes and just what information is held and made available needs to be carefully considered.

Currently in the UK the Environment Agency and Local Authorities are required to maintain a register of contaminated sites under the new Contaminated Land Regulations. Information relating to registered sites must be made available to members of the public but there are certain exemptions.

In developing a local register, it is reasonable to expect that whilst it should be available to the public, there are likely to be restrictions of some form on access to the information it holds. Access levels for planners, lawyers, professionals, and the public will have to be defined.

(xvi) *Did the planning department have a register of contaminated land?*

No. For the reasons set out in the answer to question 14, the Committee has not implemented a formal register of this nature.

The Department does however hold information on a number of sites where contamination currently is, or has been, an issue. Examples include sites where reports have been submitted by developers which provide the results of desk studies, site investigations, risk assessments and remediation strategies.

Various investigations have also been commissioned for the States on the pollution risks from historic landfill sites.

Other generic records exist of land uses that may lead to residual contaminants being present in the ground such as refuelling stations, industrial sites etc.

(xvii) *Had the ash or excavated rubble contaminated with the ash - at any time - been dumped elsewhere in the island and, if so, where?*

No - all contaminated material has either been contained on site or removed to La Collette II for disposal in the designated ash pits. The extra cost of this specific disposal method has been included in contact prices and paid to the contractor. The recent reported use of ash from a school at St Ouen's was shown to be incorrect.

(xviii) *What would be defined as 'satisfactory remedial action', for example a clean up sufficient to allow a proposed construction and use; a clean up to allow all future constructions and use; a clean up to ensure long-term public safety; a clean up to ensure permanent protection of the environment from the contamination?*

The term "satisfactory remedial action" may include all or any combination of the examples mentioned dependent on this type and scale of contaminants present on the land in question, and whether the contaminants are likely to become mobile.

Remedial action designed to achieve fitness for use my not preclude the need for further action at a later date to satisfy a subsequent change in land use, this is one of the reasons to have a contaminated land register, to monitor and record remedial action.

(xix) *The gaseous emissions from municipal waste incinerators had long been recognised in the literature as a human health hazard. Was it therefore acceptable of the States to build new housing estates and schools within a couple of hundred metres of the incinerator stack?*

The concept of controls for emissions from new incineration plant are based on the following two criteria:

i) To use of best available techniques to remove as far as is reasonably practicable as much of the noxious and toxic elements of the flue gas prior to emission to atmosphere,

ii) To ensure that through adequate stack height and efflux velocity the residual emissions of pollutants in the flue gas after treatment are so diluted, that on grounding of the plume the local air quality is in compliance with current EU air quality standards and does not give rise to nuisance.

It is unlikely that properties within a couple of hundred metres of the base of the chimney stack will be close to the point of grounding of the plume which may occur as little as twice the stack height in distance but can often be far greater. However, properties in close proximity to any industrial site are likely to be subject to adverse levels of noise from plant and traffic, and fugitive emissions from the handling, transport and processing of raw materials and waste products.

JDH
25 February 2002