THE HIGHLAND COUNCIL

Agenda Item	2.1
Report No	01/09

CAITHNESS, SUTHERLAND AND EASTER ROSS PLANNING APPLICATIONS AND REVIEW COMMITTEE

13 January 2009

CONSTRUCTION OF FACILITIES FOR THE DISPOSAL OF LOW LEVEL WASTE, COMPRISING OF UP TO 6 SHALLOW SUB-SURFACE VAULTS AND ANCILLARY INFRASTRUCTURE ON LAND TO THE EAST OF THE EXISTING DOUNREAY NUCLEAR FACILITY, THURSO, CAITHNESS. 06/00373/FULCA

Report by Director of Planning and Development

SUMMARY

It is proposed to construct up to six shallow sub-surface vaults for the disposal of low level waste (LLW) with associated development on land to the north-east of the existing Dounreay licensed site. Construction will be phased with up to two vaults proposed in each phase. Each phase is expected to take up to three years to complete with construction of Phase I expected to commence, subject to the necessary approvals, sometime towards the end of 2010 and be operational by 2014.

The scheme has been amended re-locating the disposal vaults several metres seawards and to the north and reducing the footprint of the vaults by approximately 50% through construction of deeper vaults. The proposals will deal with low level waste from Dounreay and nearby HMS Vulcan only.

A total of 15 representations against the proposal have been received, principally from local residents of Buldoo and Achreamie. The issues raised relate in the main to amenity considerations but also to matters of location; particularly consideration of alternative sites. Caithness West Community Council objects to the scheme believing that there is space within the existing licensed site boundary to accommodate the proposal. There are no objections from any other statutory consultee.

The proposals are considered to accord with the development plan and government policy on low level waste. The majority of issues raised against the proposal are short-term construction impacts that can be mitigated through condition and considerate on-site management. It is recommended that the application be granted subject to conditions.

The applicant is Dounreay Site Restoration Limited (DSRL) formerly UKAEA Dounreay.

Ward 4: Landward Caithness

This application is subject to the Council's hearings procedures.

1.0 INTRODUCTION

1.1 The Dounreay nuclear site opened in 1955 and over its operational lifetime three reactors were built: the Dounreay Fast Reactor (DFR), Dounreay Materials Test Reactor (DMTR) and the Prototype Fast Reactor (PFR). The last of these reactors, the PFR, ceased operation in 1994. The focus of activity on the site is now on decommissioning these reactors and their ancillary nuclear facilities. The current plan is for the decommissioning programme to be completed by 2025 at a cost of £2.5 to £3 billion.

1.2 The current decommissioning programme anticipates that the only buildings that will remain on the Dounreay site after 2025 will be intermediate level waste (ILW) stores, which themselves will be decommissioned once a national waste strategy has been implemented, and possibly the DFR sphere for historic interest.

1.3 An integral part of the decommissioning process therefore is the requirement to manage the low level waste (LLW)[1] that already exists at Dounreay and that which will be created as a result of the decommissioning activities. It is estimated that between 64,000m^3 and 109,000m^3 of packaged LLW and High Volume Low Activity (HVLA)[2] waste will be produced from existing and new arisings. In addition, 33,000m^3 of LLW has already been disposed of on-site to the existing authorised disposal facility (Pits1-6). If this waste is retrieved its conditioned volume will be 66,000 m^3, giving a maximum total of 175,000m^3.

1.4 While the United Kingdom Atomic Energy Authority (UKAEA) were in the process of developing a strategy for the long-term management of LLW, in 2005, the then Scottish Environment Minister, Ross Finnie, announced a decision which stopped plans to move low level waste from Dounreay to the national LLW disposal facility at Drigg, Cumbria; a route which was consistent with UK national policy at that time. The Scottish Environment Protection Agency (SEPA) was directed to refuse the application made by UKAEA.

1.5 With the on-site authorised disposal facility full, that decision resulted in above ground LLW stores being used to manage the packaged LLW. With no authorisation to dispose of operational or decommissioning LLW elsewhere, a solution for the long-term management of both the already disposed of and future LLW arisings was required.

1.6 The development of the strategy on the long-term management of the existing and future waste arisings had already been subject to a Best Practicable Environmental Option (BPEO) study; published in March 2005. This study concluded that the BPEO for managing the Dounreay LLW arising from site restoration was disposal in shallow sub-surface facilities at Dounreay.

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[1] LLW waste is defined by Government policy as waste having a radioactive content not exceeding four gigabecquerels per tonne (GBq/te) of alpha or 12 GBq/te of beta/gamma activity. Radioactivity within LLW is predominantly short lived which decays to a level similar to the natural radioactivity found in soils and rock within a period of around 300 years.

[2] HVLA waste is not a term recognised within the Government policy documentation but is used by DSRL in its waste management strategy to define those wastes that are of high volumes but lower activity than LLW. HVLA is derived principally from the demolition of buildings and will contain material with traces of activity which are too great to dispose of to landfill.

2.0 PROPOSAL

2.1 It is proposed to construct up to six shallow sub-surface vaults for the disposal of low level waste (LLW). Construction will be phased with two vaults in each phase. Each phase is expected to take up to three years to complete. Construction will include the provision of the disposal vaults and associated infrastructure (e.g. access roads, services, fencing, and drainage and a new grouting plant) (Plan A). Soil stripped from the site will be stored on site for later re-use within the Dounreay site as backfill. This aspect of the proposal is considered by SEPA to constitute a landfill site and will therefore be controlled through a Pollution Prevention Control (PPC) permit.

2.2 The disposal facilities will be a series of concrete vaults cut into bedrock (Plan B). The vaults will be constructed with reinforced concrete bases and walls and with a steel roof supporting cladding. The roof has sufficient internal height to provide handling clearance and enable access for grouting activities at closure. Drainage will be provided around the vaults during the construction and operational stages to direct groundwater and surface water run off away from the vaults. The backfilling of the voids between the walls of the vaults and the adjacent rock face will be deferred until closure.

2.3 The scheme has been amended following further detailed site characterisation work on the geology, hydrogeology and geotechnical properties of the site area, as well as additional surveys on local ecology. The layout has been revised with the amended scheme re-locating the disposal vaults several metres seawards and to the north and reducing the footprint of the vaults by approximately 50% through construction of deeper vaults (Plan C).

2.4 Operation of the facility will primarily involve the transfer of waste within the Dounreay site to the grouting plant, grouting of the LLW containers and the onward transfer of waste to the vaults.

2.5 Closure will involve sealing of all voids in the external walls, backfilling around the external walls, grouting around the LLW containers within the vaults, removal of the roof, completion of the structure around the LLW and the installation of the engineered cap over the waste. The redundant grouting plant, pump control building and administration building will be removed.

2.6 The design of the vaults will make no specific provision for the retrieval of the waste. Post-closure, the period of institutional control is currently expected to be up to 300 years. Phase III of the proposed facilities will only be implemented if waste in the existing facility (Pits 1-6) is required to be retrieved. The application states that the facility is for the disposal of Dounreay and neighbouring HMS Vulcan waste only.

2.7 Prior to the proposed facilities taking receipt of LLW, an application for an ‘authorisation to dispose’ is required to be approved by SEPA under the Radioactive Substances Act 1993 (RSA93). An Environmental Safety Case (ESC) is required in support of that application.

3.0 SITE DESCRIPTION AND HISTORY

3.1 The application site lies north-east of and, with the exception of the grouting plant, just outwith the existing Dounreay licensed site on an area of land owned by the applicant. The land is currently tenanted grazing land.

3.2 To the south of the site is part of the old military airfield runway and to the north the Pentland Firth with Landfill 42 – the existing Dounreay landfill site – located just to the north-west of the boundary. The land falls gradually from the runway, a height of some 35m AOD, to the 20m AOD contour where the settlement ponds are proposed after which point the ground falls steeply towards the sea. The vaults are to be located within the 25-30m AOD contour.

3.3 Access to the site can be gained from the airfield runway but the intention is to access the site during construction and operation via the existing Gate 21 on the eastern boundary fence of the Dounreay site. The nearest residential properties are at Buldoo some 600m directly to the south.

3.4 There is no relevant planning history for this particular site.

4.0 PUBLIC PARTICIPATION

4.1 The application was advertised in the John O'Groat Journal and the Edinburgh Gazette on 21 and 28 July 2006 as a 'bad-neighbour' development, a potential departure from the development plan and an application accompanied by an Environmental Statement.

4.2 The subsequent amendment to the application and addendum to the Environmental Statement was advertised in the John O'Groat Journal and the Edinburgh Gazette on 20 June 2008.

4.3 A total of 15 letters of representation against the proposal have been received; one from Caithness Against Nuclear Dumping (CAND), one from a solicitor acting on behalf of the Buldoo Resident's Group, with the remainder coming from local residents from Buldoo and Achreamie.

4.4 The key issues raised can be summarised as follows:

1. Loss of property values*
2. Loss of view*
3. Noise and vibration
4. Dust
5. Increase in traffic and activity
6. Light pollution
7. Negative image of waste legacy of nuclear energy*
8. Adverse impact upon health and also safety (particularly radiological)
9. Adverse impact on nature conservation
10. Adverse visual impact
11. Loss of access to foreshore
12. Coastal erosion

13. Likely to become a national dump?
14. Contrary to Government Policy
15. Contrary to policy PP3 of the Local Plan and G2 Structure Plan
16. Greenfield site outwith the Dounreay Licensed Site
17. BPEO not sound or impartial
18. Inadequate information within ES in terms of:
    - construction methodology
    - geology
    - alternatives
    - effect on environment of radioactivity
    - mitigation
19. Failure to adequately consult with neighbours
20. Infringement of Human Rights
21. Vagueness of Pits 1-6

* denotes not a material planning consideration

4.5 In addition, a letter has been received from the Dounreay Stakeholder Group (DSG), which represents over 20 organisations within the Caithness and North Sutherland community. While the DSG has not come to a view on the application, it has asked that the Council considers carefully the implications of the proposals on the community and that if the proposals are granted by the Council that permission be conditional on the development only accepting Dounreay and Vulcan waste and that a community benefit package be agreed that will provide for long-term benefit.

4.6 The names and addresses of all those who made representation are set out within Annex to this report.

All letters of representation are available for inspection in the Planning and Development Service at Council Headquarters, Glenurquhart Road, Inverness and will be available at the meeting in Halkirk.

5.0 CONSULTATIONS

5.1 Caithness West Community Council objects to the proposal on the basis that the facility could be provided within the existing licensed site boundary and question the reason for adopting a 10,000 year coastal erosion rate.

5.2 Scottish Government – Climate Change & Water Directorate has no comment.

5.3 Scottish Environment Protection Agency does not object to the proposals subject to the imposition of conditions relating to the need for a construction methodology and the requirement for a waste working plan for the construction phase, additional investigation and assessment of ground and surface water, contaminated land investigation and assessment relating to the water environment, assessment of requirement for capacity of subsequent phases and a programme for restoration of the site.

5.4 Scottish Natural Heritage has no objection to the proposals subject to conditions

ensuring that mitigation is put in place to protect naturally rare and scarce plants and non-designated coastal heath habitats.

5.5 Scottish Water has not responded.

5.6 Health and Safety Executive – Nuclear Installations Inspectorate (NII) has no objection stating that the facility will be governed by the conditions of the nuclear site licence and/or other health and safety legislation.

5.7 Historic Scotland has no objection to the proposal but does conclude that the impact of the development on the setting of the Scheduled Monument, Cnoc-na-h'Uiseig chambered cairn adjacent to the site will be substantial.

5.8 Transport Scotland has no objection on the basis that the percentage increase on the trunk road is such that the development is unlikely to have an impact on it.

5.9 TEC Services – Roads and Transportation has no objection subject to a condition requiring the construction start and finish times to be staggered with the existing hours of Dounreay.

5.10 TEC Services - Environmental Health (Contaminated Land Unit) has no objection subject to a condition requiring a contaminated land investigation and if required a scheme to deal with potential contamination.

5.11 TEC Services - Environmental Health has no objection subject to conditions.

5.12 The Highland Council Archaeologist has no objection subject to an assurance that the mitigation proposed is implemented.

5.13 Orkney Islands Council has not responded.

5.13 Shetland Islands Council supports the principle that radioactive wastes produced at Dounreay should be managed at Dounreay but that the facility should not be used for the management of waste from other sites when it is completed.

All consultation responses are available for inspection in the Planning and Development Service at Council Headquarters, Glenurquhart Road, Inverness and will be available at the meeting in Halkirk.

6.0 PLANNING POLICY

The Highland Structure Plan (March 2001)

6.1 The key polices of the structure plan are:

- **Policy G2** – Design for sustainability
- **Policy G3** – Impact Assessments
- **Policy G4** – Community benefit and commitment
- **Policy G6** – Conservation and promotion of the Highland heritage
- **Policy T6** – Scenic views

- **Policy BC1** – Preservation of archaeological sites
- **Policy W1** – Waste Management
- **Policy W2** – Waste minimisation
- **Policy W3** – Re-use and recycle
- **Policy W6** – Landfill

In addition,

- **Policy W8** – Dounreay decommissioning and remediation
- **Policy W10** – Import of nuclear waste material

Members will be aware that the Scottish Ministers neither approved nor rejected paragraphs 2.17.20-22 or Policies W8 and W10. These policies and paragraphs state the Council's position on Dounreay.

The Caithness Local Plan (September 2002)

6.2 The key polices of the local plan are:

- **Primary Policy PP3** – General Policy
- **Landward Policy 23** (Chapter 4) – Dounreay

The Dounreay Planning Framework (January 2006)

6.3 The Dounreay Planning Framework document is non-statutory planning policy guidance, written to support the policies within the adopted local plan. This document recognises the need for new LLW facilities in order for decommissioning to progress in accordance with the Dounreay Site Restoration Plan prepared by UKAEA, which has now been superseded by the Dounreay Lifetime Plan following the transfer of the site and its liabilities to the NDA.

Scottish Planning Policy 10 – *Planning for Waste Management*

6.4 SPP 10 is primarily concerned with the need to take a sustainable approach to waste management. It excludes radioactive waste management from its guidance. It contains general advice on the relationship between planning and pollution control. Paragraph 48, for example, states *'The dividing line between planning and licensing controls is not always clear cut although to avoid duplication…. SEPA may when consulted recommend planning conditions to complement their PPC permits or waste management licences.'* It continues *'The planning system should therefore:*

- *focus on whether the development itself is an acceptable use of the land rather than on the control of the processes or waste streams involved;*
- *regulate the location of the development and aspects of operations enforceable under planning control that will avoid or mitigate adverse effects on amenity, the use of land and on the environment; and*
- *secure decommissioning or restoration to a condition capable of an agreed after-use.'*

6.5 Planning controls should not duplicate other statutory controls or be used to secure objectives that are achievable under other legislation. Planning authorities should not therefore substitute their own judgement on pollution control issues for that of the Scottish Environment Protection Agency (SEPA), which has the relevant expertise and statutory responsibility for that control. This site will require a Radioactive Substances Act 1993 (RSA) authorisation from SEPA. The spoil storage area will also require a Pollution, Prevention and Control (PPC) permit from SEPA and will be subject to the standards set out within Landfill (Scotland) Regulations 2003.

UK Waste Policy

6.6 When the application was submitted the applicable Government policy was contained within *Review of Radioactive Waste Management Policy - Final Conclusions*, HMSO, July 1995 (Cm 2919). However, it primarily related to intermediate level waste (ILW), with little reference to LLW other than to state that there was a national facility near Drigg in Cumbria.

6.7 In March 2007 the UK Government and devolved administrations of Wales and Scotland published a *Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom*. The policy is not prescriptive in how LLW should be managed however Government expectation is that disposal of waste to an appropriate engineered facility, either below or above ground, with no intent to retrieve should be the end point for LLW.

7.0 PLANNING APPRAISAL

7.1 Under Sections 25 and 37(2) of the Town and Country Planning (Scotland) Act 1997, a decision upon an application for planning permission should be made in accordance with the Development Plan unless material considerations indicate otherwise.

Determining Issues

7.2 The determining issues are:

- Do the proposals comply with the development plan?
- If they do, are there any compelling reasons for not approving them?
- If they do not, are there any compelling reasons for approving them?

Assessment

7.3 In order to address the determining issues Members must consider whether the proposals a) are acceptable in principle, b) are located in acceptable position in view of alternative sites, c) to re-locate Pits 1-6 is acceptable and necessary, d) will have no significant adverse impact upon archaeology, e) will have no significant adverse impact upon ecology and nature conservation, f) will have no significant impact on the existing road network, g) will have no significant adverse impact on the safety and amenity of the surrounding community, and h) raise any other material issues not already considered.

Principle

7.4 The decommissioning and environmental remediation of Dounreay is supported within the Development Plan. It is recognised in the Highland Structure Plan that, given that this will be a long term process, there will be a need for additional facilities for the treatment, conditioning, packaging, and storage of wastes. This requirement is further endorsed by the Dounreay Planning Framework, and the continued co-operation of the Council in achieving this is committed to within the Council's Programme for Administration.

7.5 The Structure Plan policies relating to nuclear waste management are not approved by Government. However, the Council's current stated position is that nuclear waste should be stored and managed on site at Dounreay to allow for both monitorability and retrievability. The expectation of the UK Government and devolved administrations is that disposal of waste to an appropriate engineered facility, either below or above ground with no intent to retrieve should be the end point for LLW.

7.6 The proposal is for a disposal facility rather than a storage one. Having said this, while it has been designed in a way that would make it difficult to retrieve the waste this would not be impossible, albeit that it would be expensive. Only once the facility is full will it be capped and backfilled. It will be under institutional control and monitored for a period of 300 years by which time the radiological risks to the environment will be low. While not entirely compliant with the Council's current position on retrievability, the proposal is consistent with Government policy which must be given due weight.

7.7 DSRL are implementing waste minimisation measures for all forms of waste on site. This application proposes a number of vaults of a size capable of accommodating the predicted maximum volumes of LLW and HVLA. However, the applicant acknowledges that Phases II and III will only be confirmed as decommissioning progresses when waste volume estimates are further refined. There may therefore be an opportunity to recycle some wastes, particularly HVLA. As technology advances and cost reduces in combination with a continued rise in the price of some materials, particularly steel, recycling is likely to make a real difference to volumes. Encouraging the applicant to constantly seek alternatives to disposal would accord with the general principles of sustainable waste management and therefore the development plan and national LLW policy. This could be requested by condition.

7.8 The Council has been informed by the applicant that a community benefit package is proposed. This is intended to benefit the community within Caithness and North Sutherland travel to work area.

7.9 Subject to their being no significant detrimental impact upon the environment, heritage or amenity (as set out with Policies G2, G6 and BC1 of the Structure Plan and BP3 of the Local Plan), the proposals are acceptable in principle.

Acceptability of location and consideration of alternatives

7.10 The principle of whether it is appropriate for Dounreay to host a facility for the disposal of LLW has not been questioned by third parties. However, a key issue that has been raised in representations is the acceptability of the chosen location, which lies outwith the existing licensed site, when sites may well be available within the existing Dounreay licensed site.

7.11 DSRL consider that this site is the most suitable location for the facility. It was selected following an open and transparent stakeholder engagement process, where several alternative sites within its ownership were reviewed and discounted.

7.12 There is no doubt that the optimum solution from a land use planning perspective would be to place the facility within the existing licensed site, being a brown field site. This would also minimise the overall extent of the Dounreay footprint. However, a combination of factors has lead to the applicant discounting this option.

7.13 A key factor in taking this decision is the anticipated rate of coastal erosion and sea level rise. DSRL has made a decision on location on the basis of where the sea is anticipated to be in 10,000 years as a result of coastal erosion and climate change. The reason for choosing this figure is not as a result of regulatory pressure but a reasonable assumption that for any new waste disposal facility it would not be environmentally acceptable to construct a facility that may lead to radioactive waste being dispersed into the environment at some future date. In 10,000 years any residual alpha activity is likely to be below that found naturally in the soils at Dounreay. This is not considered an unreasonable position to adopt.

7.14 The result is that a significant part of the existing Dounreay site is excluded from the potential development of a LLW facility. The existing buildings and activity on the site, and the land take required for this new development would discount development on the remaining area of the site. No doubt waste minimisation, and future decisions on the need to relocate Pits 1-6 into the facility, will have a considerable influence on the actual land take of the vaults. However, at this stage the extent of volume reduction is uncertain. Notwithstanding this, the applicant believes there are also factors relating to the physical characteristics of the site that would make it less suitable.

7.15 The proposed site certainly has advantages over other sites considered (Appendix B). It is located on less productive farm land, and crucially in an area where the topography will assist in reducing the visual impact, as well as noise and air quality impacts on near neighbours. SEPA remarks in its consultation response that in the site selection process *'the applicant has arrived at as good a location as any other on the DSRL owned land at Dounreay.'* Given the combination of factors it is not unreasonable to reach a conclusion that the development could not be adequately located within the existing licensed site, and that the current site is appropriate.

Re-location of Pits 1-6

7.16 From the BPEO study carried out the identified preferred solution for the already disposed LLW (Pits 1-6) was to retrieve the waste, repackage it, and re-dispose of it in the new LLW facility.

7.17 While this is the Council's preferred solution, along with most other stakeholders at the time, it is suggested that this needs further consideration. From the applicants perspective it is the perceived difficulty in making a Post Closure Safety Case (PCSC) for leaving the waste where it is that has meant the need for inclusion of Phase III of the proposed new facility. However the existing facility is currently assessed to be safe, creating an insignificant impact on humans and the environment. According to the applicant the level of risk is below regulatory concern and is likely to remain so for centuries. Given that the cost to the taxpayer of retrieval and re-disposal is high it is prudent to await the formal PCSC evaluation before insisting that Phase III be a prerequisite of any planning permission.

Archaeology

7.18 Of the forty seven archaeological sites identified within the studies carried out for the Environmental Statement, only eight of these are within the proposed site. One is of national importance, Cnoc na h'Uisieg chambered cairn, with the others being of local importance. In the original proposal, the sites that would have been affected physically by construction activities were the Chambered Cairn (Site 1), a Scheduled Monument, an unidentified mound (Site 36) and a possible structure (Site 44). The revised proposal avoids direct impact on Site 44.

7.19 While the construction will not directly impact upon the Scheduled Monument, and the revised proposal places the development further from it, Historic Scotland regards the impact of the development to be substantial; particularly the impact that the development would have on its visual setting. However, Historic Scotland does not object to the proposal.

7.20 Subject to full excavation and recording of Site 36, and the protection of the Scheduled Monument from physical damage during construction, the Council's Archaeologist has no objection to the proposal.

Ecology and nature conservation

7.21 The proposed development site consists predominantly of both improved and semi-improved grassland as well as coastal heath. While the development lies within 9km of the Caithness Lochs Special Protection Area (SPA) and Ramsar Site and 9km of Loch Calder SSSI, the development site itself is not a designated site, and the ecology and nature conservation value of it is not considered sufficient to have any direct or indirect impact on the species protected by these designations. There will however be the potential for impacts on other protected species, as well as obvious habitat loss.

7.22 The applicant has surveyed the site for otter and bats which are European

protected species (EPS). Scottish Natural Heritage (SNH) is of the view that the surveys are adequate and that the proposals would have no adverse impact on these species on the basis of the mitigation measures proposed within the Environmental Statement.

7.23 With regard to habitat and species of national interest, the site contains a number of nationally rare and scarce plants; eyebrights, Scottish primrose and small adder's tongue. SNH has advised that should the development be granted that the Council should require the applicant to firstly map the areas where these species are present, ensure that where possible these areas are avoided and where it is not that the turfs should be carefully removed and transplanted to another location within the site.

7.24 The proposal will have direct impacts on the regionally important coastal heath habitat, with a considerable area lost to the development particularly due to storage of the Phase 1 excavated material on site and the creation of a water treatment area. This is the habitat where Scottish primrose is most prevalent. In order to mitigate for habitat loss after the excavated material has been removed, coastal heath shall be re-created to the satisfaction and agreement of SNH in a post-closure site restoration plan. SNH has no objection subject to this mitigation.

Impact on existing road network

7.25 It is anticipated that the construction stage will produce greater traffic impacts than when the facilities are operational or at the closure stage. At its peak the new facilities will employ twelve people, while during construction it is estimated that one hundred people will be on site.

7.26 The Environmental Statement concludes that the construction stage of the LLW development is not expected to impact significantly on local roads. The existing road network is considered sufficient to accommodate both the additional worker trips and HGV flows expected during the construction period. It is possible that with other construction work on the Dounreay site likely to run concurrently with the proposed development that there would be a cumulative impact created by construction workers arriving at the site at the same time. While this is likely to balance with the decline in staff numbers on the Dounreay site overall, potential mitigation is available through staggering the construction start and finish times. TEC Services – Roads and Transportation has no objection to the proposal on the basis of this mitigation.

7.27 Transport Scotland considers that the proposal would amount to an intensification of use but considers that the increase of traffic in percentage terms is such that it would have no impact upon the trunk road network.

Impact on safety and amenity

7.28 Radiological control over the site and control of pollution are not matters for the Planning Authority. This is the responsibility of the site regulators, the Nuclear Installations Inspectorate (NII), which is part of HSE, and SEPA. The NII is primarily responsible for worker safety and SEPA for the wider environment.

7.29 The Council does have a responsibility for ensuring that land and proposed buildings are 'suitable for use' from the point of view of non-radiological contamination. With the exception of the proposed grouting plant location which lies within the boundary of the existing Dounreay site there has been no previous industrial use of the proposed site. However, historical uses of the surrounding land include the former airfield. This former airfield is likely to have been associated with contaminants such as fuel oils, diesel and kerosene. While there may be no visual evidence of hydrocarbon contamination as summarised within the Environmental Statement, it is possible that it exists on the site. Disruption has potential not only to impact upon human health but water quality also. Subject to pre-commencement site investigations, risk assessment and remediation if required TEC Services – Environmental Health (Contaminated Land) has no objection. While the Council is lead authority in this matter SEPA has an interest in the impact on the water environment and has requested that this too be covered in any proposed condition.

7.30 With regard to amenity adverse impacts from noise, dust and potential light pollution are short term impacts that will generally only be present during the construction period. It must however be recognised that the construction period will last a considerable number of years. Many of the construction operations are not dissimilar in many ways to work on mineral sites which rely on large heavy plant for excavation, crushing and screening. While hours of construction will be limited, there is potential for noise and dust particularly to be a nuisance while work progresses if not properly controlled. For minerals development it is not uncommon for a liaison group to be established by applicants with near neighbours. As a matter of good practice and construction management it is suggested that the establishment of such a group be a pre-requisite here should permission be granted. This can be requested by and controlled by condition.

7.31 From ground level, the impacts on visual amenity from neighbouring properties will be limited. The revised proposals push the development further to the north and propose a lower profile for the soil storage mound which will be no higher than 5m above existing ground level. These measures reduce the impact. It is however accepted that from first floor height amenity may be compromised but not the key views to the sea.

7.32 Subject to mitigation it is not considered that the proposals would have significant long term adverse effects on the amenity of the surrounding community.

<u>Other material considerations/ objections</u>

7.33 Objectors have raised the prospect that the development would be in contravention of their rights under Articles 8 and First Protocol, Article 1 of the European Convention of Human Rights (ECHR). EHCR has been incorporated into domestic legislation in this country by the Scotland Act 1998 and Human Rights Act 1998. The Town and Country Planning Acts must be read in conjunction with the convention rights brought into effect in the 1998 Act. While decisions may be reached in a similar way, they may require different factors to be taken into account.

7.34 It has already been established that a loss of view, impact on property values or the negative image of radiological waste disposal are not material planning considerations. However, it could be and indeed appears to be argued that these matters in relation to these proposals amount to an infringement of human rights.

7.35 The impact on views has been considered in respect of amenity along with the general construction impacts. These are the most likely factors in ordinary circumstances to impact on property values and persons enjoyment of their own property (Article 1). These impacts are not considered to be significantly detrimental, certainly over the longer term. It is however more difficult to anticipate what the impact of a negative image of the waste legacy of nuclear energy would have on the enjoyment of property, or a persons right to respect for private and family life (Article 8). Having said this, the development is adjacent to the existing Dounreay site which is already associated with that waste legacy. In view of these factors it would be difficult to conclude that a decision to grant the development would be in contravention of convention rights.

8.0 CONCLUSION

8.1 Planning Advice Note 58 - Environmental Impact Assessment states that experience shows that there will usually be a small number of major issues, perhaps only one, on which the acceptability of a project hinges and that these major issues should be highlighted in the planning report, drawing on the content of the Environmental Statement. The Environmental Statement is considered to be comprehensive.

8.2 As is evident from the assessment, most impacts of the proposed development will not be significantly detrimental and could be adequately controlled through both the mitigation measures proposed or through conditions.

8.3 In this case the major issue relates to the acceptability of the location, its resultant impact on visual amenity and, being outwith the existing site and closer to existing properties, the perceived negative image of the nuclear waste legacy that it creates for that community. The matter of location is the issue that constitutes a significant body of representations received.

8.4 The Council must make its decision on a planning application on the basis of what is before it. While ideally any development associated with Dounreay should be within the existing licensed site boundary, it can reasonably be concluded that there is no capacity within the existing site for this development. The major, although not only, limiting factor is the decision to use a 10,000 year coastal erosion assumption. This is justified. It takes a precautionary approach which is what would be expected. The reduction in volumes and future decision on existing Pits 1-6 may well result in development that will consume considerably less of a footprint, yet the decision on these matters is some way off. Even then, it remains uncertain that the available land within the existing site would be sufficient. Alternative sites have been considered but legitimately discarded.

8.5 What the applicant and the Council can ensure is that the impacts are limited. A

major consideration will be to ensure that the waste created on site is minimised and that every effort is taken to re-use and recycle where possible. The amended proposal reduces the footprint of the development significantly. By taking this approach the footprint may be reduced significantly further.

8.6 The development accords with Government policy, does not conflict with the approved policies of the development plan and no material considerations indicate otherwise.

The application is not considered to be a departure to the development plan. However, as the application is accompanied by an Environmental Statement it must be referred to Scottish Ministers who will decide whether the Council is able to deal with the application as it so intends to or if it should be called-in for their determination at public inquiry.

RECOMMENDATION

That planning permission be **GRANTED**, subject to the following conditions:

1. The development hereby permitted shall commence no later than five years from the date of this consent.

2. Except as otherwise provided for and amended by the terms of this approval, the operator shall construct and operate the development in accordance with the approved plans and the Environmental Statement (as revised by the Addenda to the Environmental Statement).

3. For the avoidance of doubt the facilities hereby granted are for low level waste (LLW) at or originating from Dounreay and HMS Vulcan only. Upon completion of the development, or each Phase no further Phase is required, all vaults shall be backfilled and capped, buildings and ancillary equipment dismantled and removed from the site, and the ground restored to the satisfaction of the Council.

4. Prior to the commencement of work on site, an environmental management plan (EMP) shall be submitted to and agreed in writing by the Council in consultation with the SEPA and SNH as appropriate. The environmental management plan shall detail contractor arrangements for the following:

    - Foul and surface water during construction;
    - Management of any drill cuttings and related fluids;
    - Removal and placement of soils and rocks;
    - Transport of materials to the site;
    - Handling and pouring of concrete;
    - Refuelling of plant;
    - Storage of fuels and chemicals;
    - Potential leachates from excavated materials;
    - Use of biodegradable hydraulic oils for site pant;
    - Measures to prevent accidental leakage of concrete mix washings and stored chemicals;
    - Rapid establishment of vegetation on excavated material to reduce run-off of suspended soils;
    - Ensuring that adverse impacts of construction on operational parts of the

site are avoided;
- Mitigation measures to protect European protected species, particularly otter and bat; and,
- Transplantation and construction methodology for the removal of those turfs, where required, containing Scottish primrose and small adder's tongue; and
- Monitoring and audit programs to ensure best practice is being followed during the construction process.

5. Prior to the commencement of work on site, a site waste management plan detailing measures to reduce waste arisings form the construction of the development shall be submitted to and agreed in writing by the Council in consultation with SEPA. This plan shall include, but not be limited to, the following measures:

    - How minimisation of waste shall be achieved and how the waste hierarchy will be followed;
    - Details of how the construction process for the vaults links with the construction and commissioning of the processing and material storage facility outlined with Chapter 11 of the ES;
    - Procedures for transferring materials between the construction site and reprocessing facility;
    - Proposals for the management of waste during construction;
    - How contaminated soils identified prior to construction will be managed, treated and disposed of.

6. Prior to the commencement of work on site, details of the type and colour of walling and roofing material to be used shall be submitted to and agreed in writing by the Council. Only the agreed materials shall be used.

7. Prior to the commencement of development, arrangements for liaison between the applicant, nominated contractor and the local community during construction shall be submitted to and agreed in writing by the Council. The arrangements shall include the establishment of a Local Liaison Group, nomination of a single point of contact for the community, and regular reporting arrangements. The approved arrangements shall be implemented for the duration of construction of the whole development to the satisfaction of the Council.

8. Prior to the commencement of work on site a scheme of investigation and assessment of ground and surface water, shall be submitted to and agreed by the Council in consultation with SEPA. The scheme shall include:

    - The scale and type of dewatering measures and associated down gradient collection, transfer, settlement and treatment facilities required at various phases of the project, including capacity for seasonality effects;
    - The impacts relative to both active and post dewatering phases and, with regard to the latter, the long term effects imposed by the low permeability structures that will effectively dam and divert groundwater flows as they move through the facility footprint; and
    - The qualitative characteristics of groundwater, both up gradient and down gradient of the proposed facilities, including seasonality effects.

    Only the agreed scheme shall be implemented.

9. Prior to the commencement of work on site, a scheme to deal with potential non-

radiological contamination on this site shall be submitted to and agreed in writing by the Council in consultation with SEPA. The scheme shall include the following details:

- The nature, extent and type of contamination on site, identification of pollutant linkages and assessment of risk (i.e. contaminated land risk assessment and remediation plan) the scope and method for which is to be agreed in advance by the Council and undertaken in accordance with PAN33 (2000) and BS10175:2001. Particular attention needs to be given to distinguishing any polluting impacts from the site itself, which is known to have been occupied at least in part by a former operational airfield, from any polluting impacts arising from adjacent potentially contaminative land-uses which include Landfill 42 and Dounreay decommissioning plant and its former operations;
- Remedial strategy (if required) to treat/remove contamination to ensure that the site is fit for the uses proposed (this shall include a method statement, programme of works, and proposed verification plan);
- Submission of a validation report (should remedial action be required) by the competent person employed by the applicant who will validate and verify the completion of works to a satisfactory standard as agreed by the Council;
- Submission, if necessary, of monitoring statements at periods to be agreed with the Council for such time period as considered appropriate by the Council.

Written confirmation from the Council that the scheme has been implemented completed and if appropriate, monitoring measurements are satisfactorily in place, shall be required prior to the commencement of work on site.

10. Prior to the commencement of any construction works, the following archaeological mitigation work shall be undertaken:

    - Full excavation and recording of Site No. 36 (mound);
    - Measures to protect the scheduled monument (Site 1) from both construction and operational impacts;
    - A programme of geophysical survey of the entire development area; and
    - A programme of archaeological evaluation on a minimum of 5% of the area proposed for development.

    Dependent upon the results of the geophysical survey and/or archaeological evaluation full archaeological excavation of identified features and/or a watching brief may be recommended. A written scheme of investigation (WSI) from the appointed archaeological contractor shall be submitted to and agreed in writing by the Council Archaeology Unit prior to the commencement of any archaeological investigation.

11. Prior to the commencement of Phase I a specific waste management strategy that details measures to reduce, reuse and recycle material intended for disposal to the development shall be submitted to and agreed in writing by the Council, in consultation with SEPA. This strategy shall be updated on an annual basis and implemented to the satisfaction of the Council.

12. Within six months of the date of this permission, proposals for an up to date site monitoring network shall be submitted to and agreed in writing by the Council, in consultation with SEPA. The proposals shall include:

- Provision of groundwater level monitoring array targeted at the excavation scale horizon not currently monitored, namely at greater than 5m depth and up to 25m in depth; and
- Provision of groundwater quality monitoring array, for the purpose of groundwater sampling and chemical analysis, of sufficient spatial distribution ad appropriate siting to inform baseline groundwater conditions up gradient and down gradient of the proposed facilities at a variety of depths inclusive of excavation scale monitoring.

The agreed proposal shall be implemented and shall not be modified without the prior written approval of the Council, in consultation with SEPA.

13. Unless otherwise agreed in writing by the Council, no blasting operations shall be carried out.

14. Construction hours shall be restricted to 0700 to 1700 on Mondays to Fridays and from 0700 to 1200 on Saturdays with no work permitted on Sundays or on Bank Holidays. Any work on site outwith these times shall only take place with the prior written approval of the Planning Authority, with such approval not unreasonably being withheld. Except in the case of an emergency, written notification shall be submitted at least 4 weeks prior to such works commencing.

15. During permitted hours of operation, the free-field equivalent continuous noise level ($L_{Aeq,1hr}$) shall not exceed 45 dB(A) at the nearest noise sensitive premises unless during soil stripping operations in which case the free-field equivalent continuous noise level ($L_{Aeq,1hr}$) shall not exceed 55 dB(A). In the event of complaint, noise monitoring shall be carried out in accordance with BS4142:1997 and BS5228:1997 by independent specialist consultants acting jointly with the Planning Authority. Results of all noise monitoring shall be supplied to the Planning Authority. The appointed contractor shall adopt “Best Practical Means” in controlling noise levels and shall follow guidance contained within BS5228 Part 1 –1997 – Noise and Vibration Control on Construction and Open Sites.

16. All vehicles, plant and machinery operated within the site shall be maintained in accordance with the manufacturer’s specification at all times, and shall be fitted with and use effective silencers.

17. The perimeter of the site shall be enclosed by a stock proof fence which shall be maintained in good condition until the completion of restoration.

18. No development operations shall commence in any Phase until all soils have been stripped. Soils shall be stripped to full available depth from all operational areas within the site except areas designated for soil storage. Topsoil and subsoil stripping shall only be carried out when the site and soil are in a dry condition. The stripping of soils from each successive Phase shall not take place more than 6 months prior to the completion of extraction operations in the previous Phase.

19. All soil storage mounds shall be evenly graded, shaped and drained to prevent water ponding on or around them and they shall be seeded with a suitable low maintenance grass seed mixture. Soil storage mounds shall not exceed 5 metres in height.

20. Throughout the period of work, restoration and aftercare the applicant shall protect

and maintain or divert any ditch, stream, watercourse or culvert passing through the site so as not to impair the flow nor render less effective drainage on to and from adjoining land.

21. No infill material, other than topsoils and subsoils as exempted under the provisions of the Waste Management Licensing Regulations 1994 (as amended), shall be brought onto the site without benefit of the requisite planning permission and Waste Management Licence and only in accordance with a scheme of restoration and in locations approved in writing by the Council.

22. Within six months of the date of this permission, the operator shall submit a dust management strategy for the approval of the Council. This shall assess potential dust arisings and appropriate mitigation measures. The agreed strategy shall thereafter be implemented.

23. Twelve months prior to closure and restoration of the site, a detailed restoration plan for the site shall be submitted to and agreed in writing by the Council, in consultation with Scottish Natural Heritage and the Scottish Environment Protection Agency. The restoration plan shall include details of all final levels and earthworks on site and adjacent to the site. Details provided in connection with each phase of the restoration programme shall include contoured site plans; details of the quantities and origins of soil and soil making materials to be incorporated into each phase; and details of the timescales and methodology of seeding and planting of all species. All planting shall be permanent and temporary planting will not be considered unless adequately justified.

24. Following restoration works, the site shall be subject to a monitoring and aftercare scheme for a period of five years, the method statement and specification for which shall be submitted for the prior written approval of the Council. The agreed measures shall thereafter be implemented.

25. Controlled waste, namely soils, rock and other materials produced as a result of construction works or excavation or other operations on site, shall be disposed of only at a licensed facility or reused strictly in accordance with an activity exempt waste management licensing controls, as specified within the Waste Management Licensing Regulations 1994, and pre-registered with SEPA.

26. The applicant shall undertake all works within the terms of “Guidelines for Preventing Pollution from Civil Engineering Contracts” published by SEPA and shall ensure that there are safeguards against pollution of groundwater or any watercourse from all construction activities and ongoing operational activities.

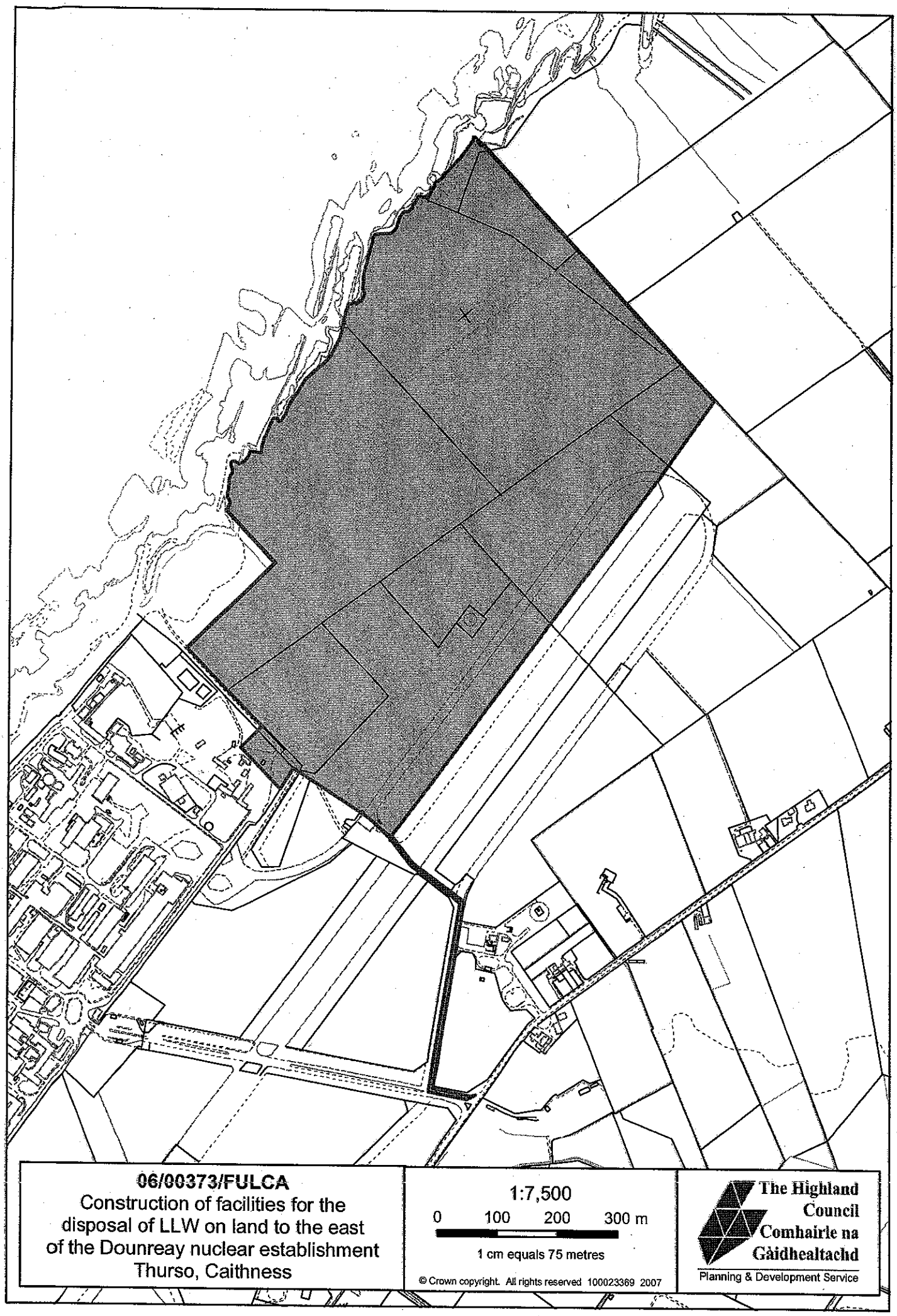
Signature:

Designation: Head of Planning and Building Standards

Author: David Mudie, Team Leader – Development Management (HQ)

Date: 05 January 2009

Background Papers: Case File

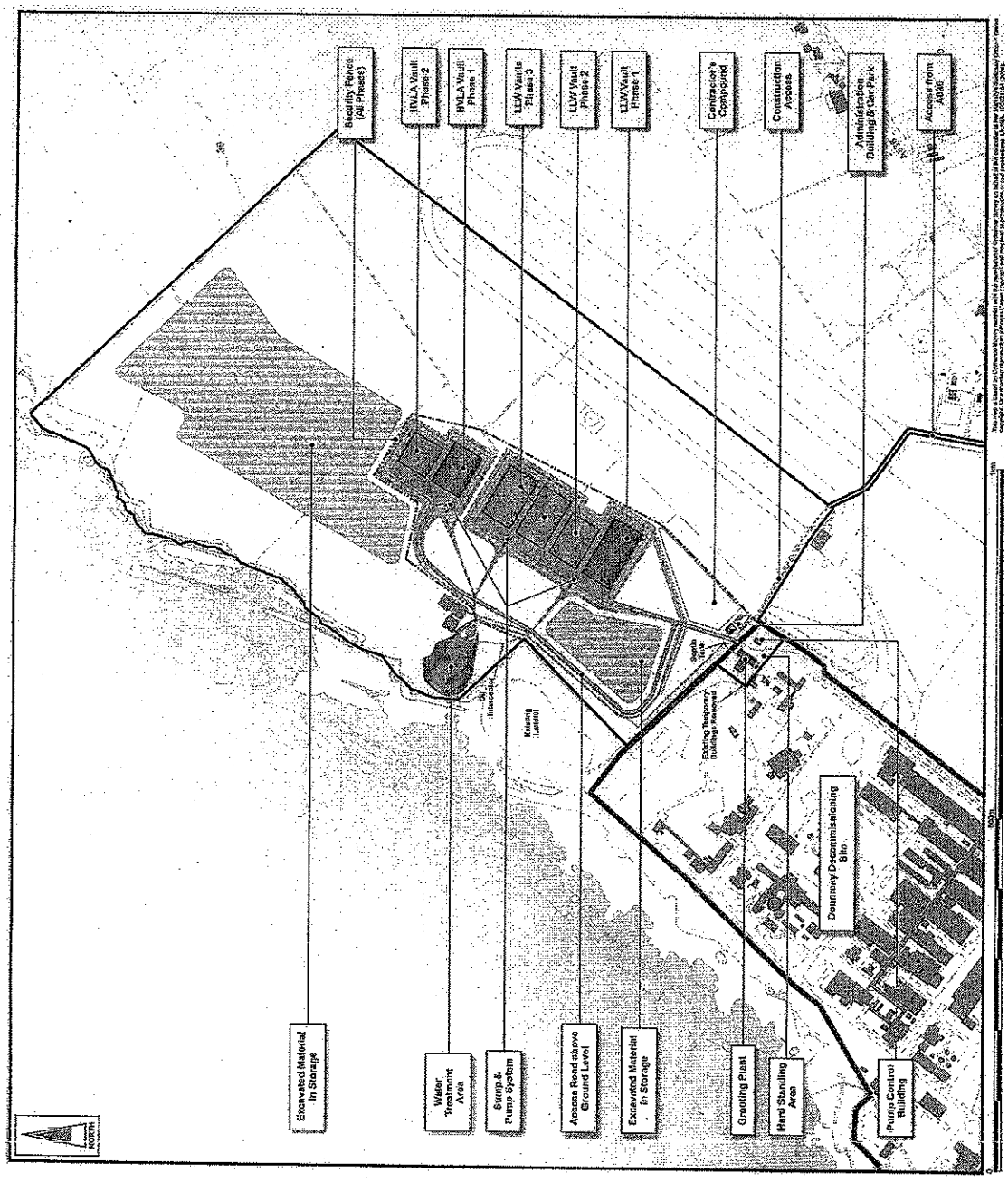


06/00373/FULCA
Construction of facilities for the disposal of LLW on land to the east of the Dounreay nuclear establishment Thurso, Caithness

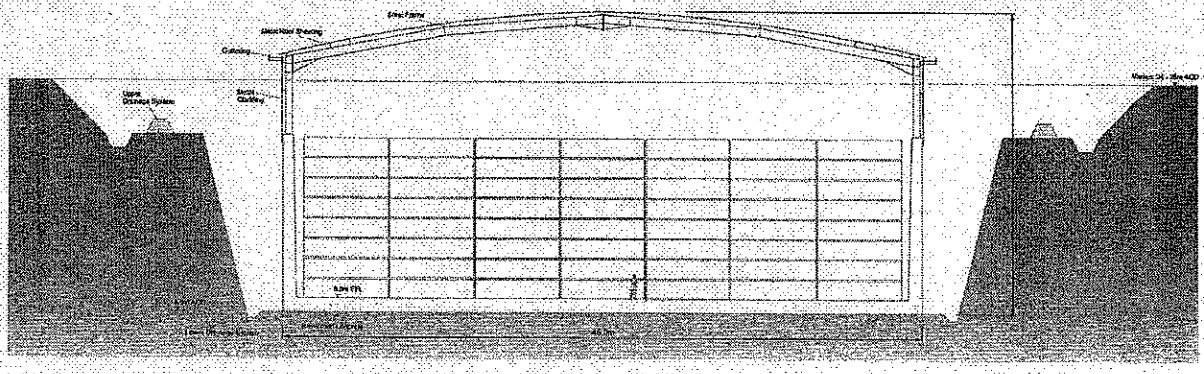
1:7,500
0 100 200 300 m
1 cm equals 75 metres

The Highland Council
Comhairle na Gàidhealtachd
Planning & Development Service

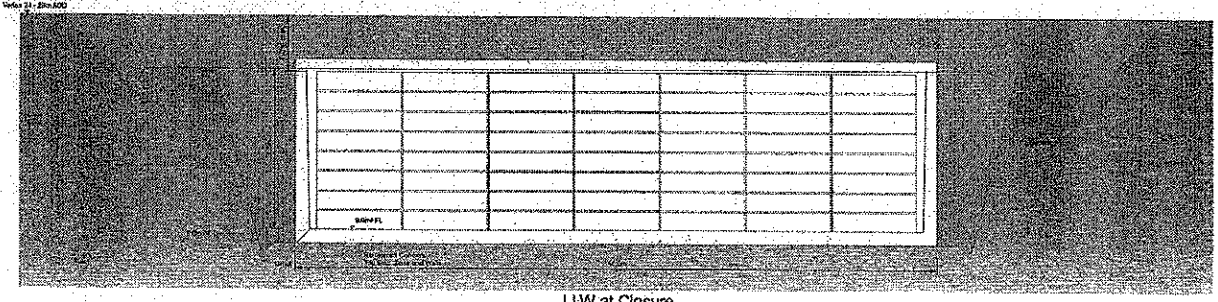
PLAN A – Site Layout



PLAN B – Vault design



LLW During Operation



LLW at Closure

PLAN C – Comparison with original layout

PLAN D – Alternative areas of search