Appendix 1a:

ID 1325 – Additional information submitted in response to Question 5

Disposal of Radioactive Waste in West Cumbria.

The suggestions made by NIREX, NDA and MRWS Partnership for the disposal of containers of radioactive waste in West Cumbria are complex, expensive and controversial. Because the Peers (see note below) recommended to the Government that they should bury these radioactive products below sea level they are rather like the Peers who recommended to King Canute that he could overcome the tide. Safe long term storage of radioactive waste below sea level is impossible.

Peer reviews can be dangerous and frequently hinder progress. UK Peers gave to the UK the AGR power stations and Sellafield (Springfield's based) MOX plant, they also rejected a NENDOREC hypothesis which would if accepted have saved the UK Government £100,000,000 on a number of projects which have, up to the present date, been fruitless. A NENDOREC hypothesis showed in the 1960's that the AGR power stations were complex, inefficient and uneconomical and that they should have been replaced by PWR power stations before any of the AGR's were built. (see letter attached)

The Geological Disposal Facility suggested in the report does not even mention one location and being below sea level storage is totally wrong. Hence it is well worth while to consider a totally different concept as given below.

The Black Combe Storage Facility.

The Black Combe Storage Facility uses existing sites at Sellafield and Drigg for offices, main workshops and packaging units. It disposes of high quality aggregate to the road infrastructure of the UK and low quality aggregates to the Duddon shore line.

A new single track electric railway tunnel would be made leaving the main line after Bootle station at Grid Reference SD 109850 and passing under Black Combe east of Whitbeck village and rejoining the main line at Grid Reference SD127824 before entering Silecroft station. The tunnel's entrance and exit would be architecturally designed to enhance the countryside like the Box Tunnel work of Brunell. The offices, workshops and ventilation equipment would all be underground . There would be no road access except for emergency vehicles like the entrance to the West Lakes Science Park on the Moor Row to Keekle road. The tunnel is shown in red on the attached map.

When this rail tunnel is completed all future work on the site will be by rail from the Sellafield or Drigg sites. There will be no night shift working on this sensitive project.

Stage 1. Construction of the security doors and the security office to control these doors.

Stage 2. Construction of the office, rest room, workshops and ventilation units on the eastern side of the tunnel.

Stage 3. Construction of the spine tunnel under Black Combe to its maximum extent.

Stage 4. Construction of the side storage galleries starting at the limit of the spine tunnel furthest from the rail tunnel.

Stage 5. Stop all construction work.

Stage 6. Fill the galleries with the items for storage and then seal the galleries and also seal off the spine tunnel at the limit of this work.

Stage 7. Stop all disposal work.

Stage 8. Repeat Stage 4 and continue until all the Geological Disposal Facility is full at this level.

Because all the main offices and works are on the Sellafield or Drigg sites this project has no further environmental or transport implications. The two tunnel portals will enhance the beauty of the coastal railway journey. The disposal of high grade aggregate will be of great benefit to the economy. The disposal of the low grade aggregate to the Duddon area should encourage the building of the Duddon Barrage and its infrastructure to enhance the economy of the Millom area.

This **disposal** facility is only required for the legacy products of the Magnox reactors, AGR power stations and THORP 1 reprocessing plant at Sellafield. All future nuclear power stations will be of the PWR design and their nuclear waste should be reprocessed in THORP 50A plants without transporting the radioactive waste around the country, this was based on the NENDOREC approach to nuclear work in the UK. See the attached letter.

Corney Fell Storage Facility.

This is similar to the Black Combe suggestion but it has only a single access tunnel. The rocks from this site would be granite whereas the rocks from the Black Combe site would be of the Ordovician (Arenig) type. See the attached map.

Black Combe Storage Facility with the application of Occam's Razor.

The application of Occam's razor reduces the entrance to one tunnel and eliminates the necessity to transfer packages onto a separate spine tunnel to feed the galleries. See attached map.

Note on Peers.

The UK Peers believe and advise the Government at great expense to believe that Einstein proved that $E=mc^2$; that there is a critical point for gases including steam; that the sun is a plasma nuclear reactor and it is entirely gaseous; that the Kinetic Theory of Gases is almost correct; that there are quantum liquids with antigravity properties; and that there is a property of entropy. These Peers block their ears and shield their eyes from the obvious truths that matter is not convertible into energy (there is a conservation of mass); that the so called critical point is actually a thermodynamic triple point and that supercritical boilers are unlikely to be more efficient than sub-critical boiler power stations as was experienced at Drakelow C power station; that the sun is mainly solid with a very deep atmosphere as suggested by William Herschel, there is no plasma fusion in the sun; that the kinetic theory is merely bouncing balls and nothing to do with real gases; that quantum liquids are really fine solid powders and they have no antigravity properties; and finally entropy is simply mathematical hocus pocus. Peers are inclined to forget that they specified only 16 lifeboats for the Titanic!

A NENDOREC hypothesis shows that these truths are simply an extension of an Atomic hypothesis proposed by John Dalton of Eaglesfield in Cumbria many years ago.

Further notes on this Geological Disposal Facility in Copeland.

1.The main tunnel will be standard overhead electrical traction. A short section of the coastal railway will also be electrified. This is shown as red on the maps. This form of traction was shown in the DVD of the MRWS partnership.
2. It is envisaged that the containers will be of the standard shipping container design, but the materials of construction may be different. Size 40 (or 20)' x 8' x 8' 6".
3. The tunnels and galleries will be lined throughout.
4. The tunnels and galleries will be provided with drainage channels.
5. The contents of the containers will be engraved on stone pillars at the end of each gallery. This is in addition to any paper or vellum copies. Electronic copies are for current use only.
6.There will be permanent lighting in the tunnels but only temporary lighting in the galleries.
7.There will be permanent monitors in the tunnels but only temporary monitoring in the galleries.
8.There will be permanent ventilation in the tunnels but only temporary ventilation in the galleries.
9.Combustible materials, like wood, oil products, food, furniture and clothing will be strictly controlled during the operational phase of the Geological Disposal Facility and all (or most) of these items will be removed when the Facility is full.
10. No stores will be kept in the Facility, any necessary stores will be on the service train in a separate coach.
11. If Occam's Razor is applied then the Rail Tunnel and the Spine Tunnel can be combined. This will eliminate the transfer of containers from one system to the other.

Comment from Document 29 of the MRWS Partnership.

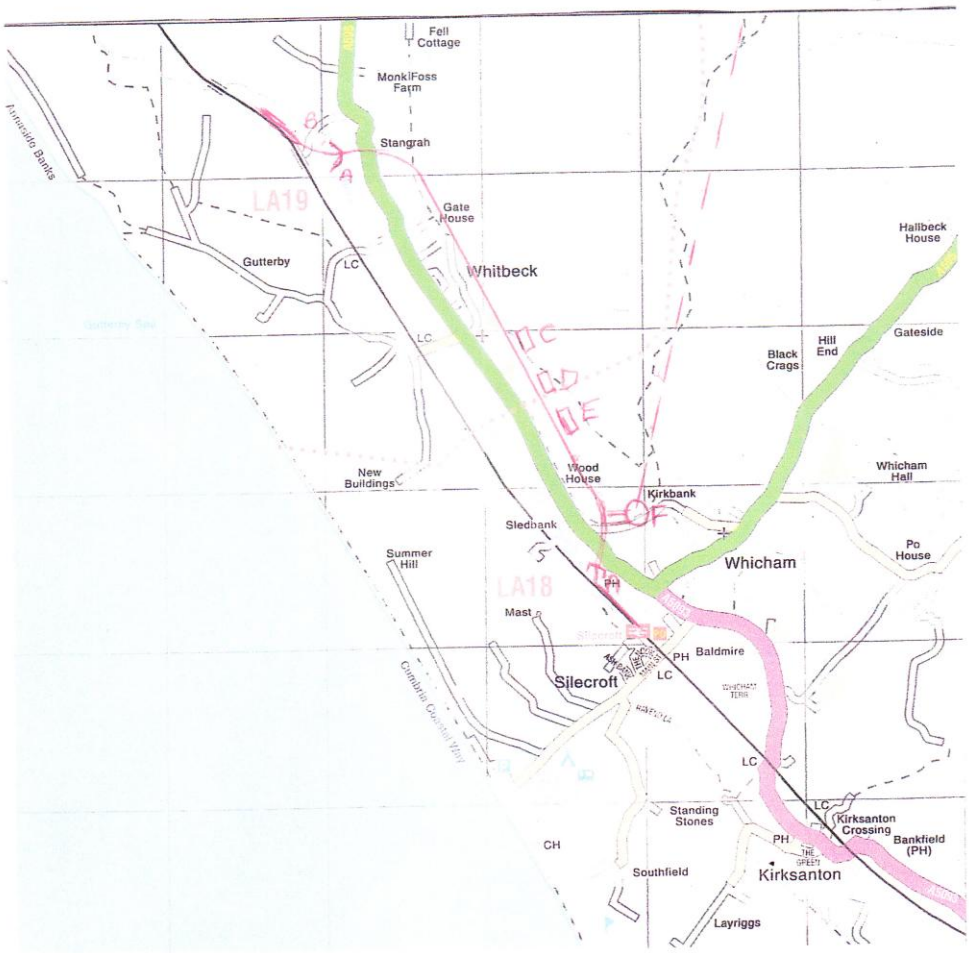
This related to a suggestion that Black Combe would present a solution where waste could go „in [horizontally] rather than down□. There were two responses, one from CoRWM highlighting the work and deliberation which had led to deep geological disposal being decided on as the best route for waste, and the fact that it does allow for a variety of design concepts. Secondly it was pointed out that Black Combe is not in an area ruled out by the initial BGS screening so there is still a possibility of studying the area more closely.

Geological Disposal Facility
Black Combe Cumbria

Red line shows the electrified railway and the tunnel under Black Combe.

A. Tunnel portals and the security gates.
B. Emergency road.
C. Office and rest room.
D. Workshop.
E. Ventilation equipment and control room.
F. Entrance to spine tunnel.

Dashed red line indicates the location of the spine tunnel.
Double red line indicates the feeder road from the rail tunnel to the spine tunnel.



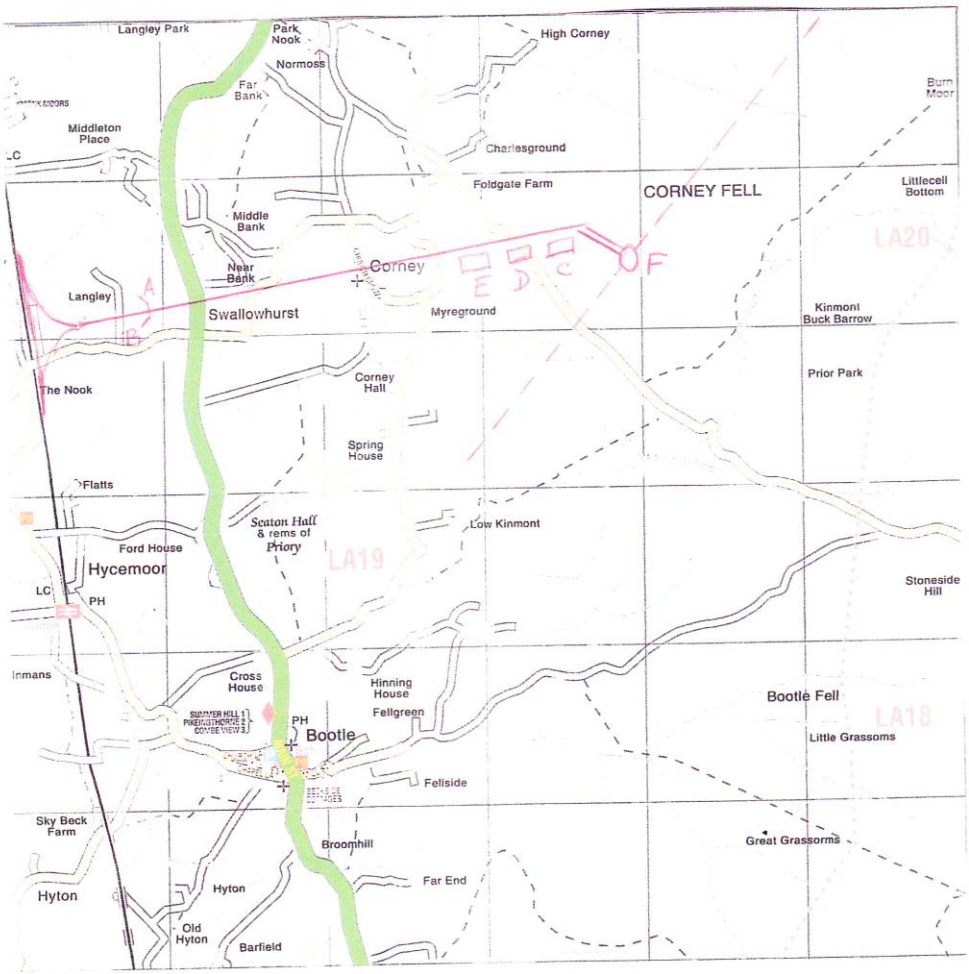
Geological Disposal Facility
Under Corney Fell Cumbria

Red line shows the electrified railway and the tunnel under Corney Fell.

A. Tunnel portal and the security gates.
B. Emergency road.
C. Office and rest room.
D. Workshop.
E. Ventilation equipment and control room.
F. Entrance to spine tunnel.

Dashed red line indicates the location of the spine tunnel.
Double red line indicates the feeder road from the rail tunnel to the spine tunnel.

Scale 1.75 inches to 1 mile



Geological Disposal Facility
Black Combe Cumbria applying Occam's Razor.

Red line shows the electrified railway and the tunnel under Black Combe. It extends to the end of the spine tunnel. Some of the galleries are shown as black lines.

A. Tunnel portal and the security gates.
B. Emergency road.
C. Office and rest room.
D. Workshop.
E. Ventilation equipment and control room.

Scale 1.75 inches to 1 mile.