

# SAFE ENERGY E-JOURNAL No.55

## February 2012

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This e-journal focuses on nuclear waste issues in Scotland. It does not deal with the UK Government's proposed new reactor programme. For an update on the so-called "facilitative actions" see here:

<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo36.pdf>

### **Scotland's Higher Activity Waste Policy**

CoRWM discussed its scrutiny of the Scottish Higher Activity Waste (HAW) Policy development process and consultation at its meeting in York on 14<sup>th</sup> September. The minutes record that the Scottish Government has:

*"...produced a policy that was adequate for some waste producers but not definite enough for those waste producers with HAW not suitable for near site, near surface disposal." (1)*

Around 25% of the waste in question is considered to be unsuitable for near-surface disposal, and would need to be stored until there are further technological developments. These wastes include plutonium contaminated materials, and raffinates – both the result of reprocessing at Dounreay and sludges. (2)

The CoRWM statement implies that Scottish Government Policy is to "dispose" of the other 75% of Scottish HAW in near surface disposal facilities.

However, the finalised Scottish Government Policy made clear that:

*"...Scottish Government Policy at the present time is that long-term storage is still the primary long-term management option" (3) (emphasis added)*

Although "disposal" of Higher Activity Waste (HAW) is still included as an option in the policy the practise is quite tightly defined and will require waste to be monitored and retrievable, and any 'disposal' should be as close to the surface as practical and near to the site where it is produced.

The NFLA assessment of the Scottish Policy published in January 2011 (4) said that the "*proof will now be in the pudding*" and it will be necessary to watch how the policy is implemented. Now that near-surface disposal has been accepted as a possible option Magnox North may continue with proposals to 'dispose' of graphite sleeves at Hunterston – despite the fact that storage should be the priority.

At its December 2011 meeting the Hunterston Site Stakeholder Group was told that the Nuclear Decommissioning Authority (NDA) has asked Energy Solutions to stop work on the Graphite Pathfinder Project (which has been looking into the feasibility of disposing of graphite reactor components in a near surface facility at, or near to, Hunterston A). (5) The NDA said there was no economic case for proceeding. SEPA's advice published in June 2011 appeared to be fairly negative about the proposal. (6)

There is still concern locally that the Hunterston Intermediate Level Waste Store or some other part of the site could be used for waste from outwith the area. SNP Councillor Alan Hill told Hunterston bosses who may be considering making 'A' station a waste depository for other nuclear stations around Scotland that any bid to try making Hunterston a national dumping ground would be against planning policy. Labour councillor Alex Gallagher set up a petition to oppose any suggestion of other nuclear waste coming to the site. (7)

(1) CoRWM Minutes of Plenary Meeting 14<sup>th</sup> September 2011, York.

<http://corwm.decc.gov.uk/assets/corwm/post-nov%2007%20doc%20store/plenary%20papers/2011/2970-minutes-plenary-meeting-sept-2011.pdf>

(2) CoRWM Document 2621. Note of meeting with Scottish Government 20<sup>th</sup> May 2009

<http://corwm.decc.gov.uk/assets/corwm/post-nov%2007%20doc%20store/documents/other%20meeting%20minutes/2009/2621%20-%20scottish%20government%20haw%20policy%20note%2020%20may%20final.pdf>

(3) Scotland's Higher Activity Radioactive Waste Policy 2011. (para 2.04.03)

<http://www.scotland.gov.uk/Publications/2011/01/20114928/2>

(4) Scotland's Higher Activity Waste Policy: A Brief Assessment, NFLA, January 2011

[http://www.nuclearpolicy.info/docs/radwaste/Radioactive\\_Waste\\_Briefing\\_27\\_Scottish\\_policy.pdf](http://www.nuclearpolicy.info/docs/radwaste/Radioactive_Waste_Briefing_27_Scottish_policy.pdf)

(5) See <http://www.sitestakeholdergroups.org.uk/hunterston/upload/Hunterston-SSG-Meeting-Pack-December-2011.pdf> See also <http://www.north-ayrshire.gov.uk/chiefexec/minutes.nsf/6939f82190c5aae2802572dd0046f16c/39e33ab1f6aa4cc5802579360035c3d4?OpenDocument>

(6) [http://www.sepa.org.uk/radioactive\\_substances/decommissioning/hunterston\\_a.aspx](http://www.sepa.org.uk/radioactive_substances/decommissioning/hunterston_a.aspx)

(7) Largs & Millport Weekly News 27th Jan 2012

<http://www.largsandmillportnews.com/news/roundup/articles/2012/01/27/422909-dont-dump-nuclear-on-us/>

### **Scottish Reactor Life Extensions**

In July 2011 it was reported that EDF Energy is already preparing its case for a further life extension for Hunterston B from 2016 to 2021. (1) Trade Unions at Hunterston are said to be confident the evidence presented to the regulator for the periodic safety reviews will result in agreement to a significant life extension for Hunterston B until 2021 or 2026. (2) Hunterston B, which was opened in 1976, is older than most of the eight reactors which Germany has already shut down.

NFLA (Scotland) wrote a joint letter to the Energy Minister, Fergus Ewing MSP, together with FoE Scotland and WWF Scotland asking him to commission an independent study on the risks associated with continuing to operate the ageing Hunterston B reactors. (3) If Torness were to receive the same ten year life extension Hunterston hopes to get, that would mean Scotland would not become a non-nuclear country until at least 2033.

In December 2007 when British Energy announced it was extending the life of its Hunterston reactors for five years until 2016, Scottish National Party Ministers were attacked by, of all people, the Liberal Democrats for welcoming the news. The Lib Dems accused the minority SNP Government of "*flip-flopping*" over the morality of nuclear power. Jim Mather, the energy minister at the time, said:

*"[British Energy] will have to invest significantly at Hunterston to ensure it is safe and reliable, and that has to be in Scotland's interests...It [was] always understood that existing nuclear power stations continue until the end of their lifecycle."* (4)

But with everything that has happened in the last four years – the Fukushima disaster for instance, the fact that renewable are doing better than expected in Scotland and the Scottish Government has introduced a new target of producing the equivalent of 100% of Scotland's electricity from renewables by 2020 (5) – it would be reasonable to expect the new Energy Minister, to oppose any further life extension for Hunterston. Whilst it's true that the Scottish Government has very limited official powers in the Life Extension (the Periodic Safety Review) process, it could have a major influence on the outcome.

It was very disappointing then when Fergus Ewing MSP told the Scottish Parliament there was a "rational case" for extending the life of Scotland's two nuclear plants, and that the SNP government was "perfectly open" to the continued use of Hunterston and Torness power stations, to ensure there was security of supply. He told a debate on renewable energy in the Scottish Parliament that the two power stations could continue to generate electricity "providing that the case is justified on economic and environmental grounds". He added: "That case exists, and it exists because of the need for security of supply. We have always acknowledged that, although we are clearly opposed to the building of new nuclear power stations." (6)

Friends of the Earth Scotland said the minister's statement was "deeply disturbing and utterly disappointing". Stan Blackley, chief executive of the campaign group, said: "The Scottish government should not be propping [the power stations] up in their old age, during which they will grow ever increasingly unreliable and potentially even more dangerous ... The SNP has always been viewed as anti-nuclear, particularly given the anti-nuclear words and activities of its politicians at all levels in recent years, and I'm sure many SNP voters will feel quite misled when they learn that this is not the case anymore." (7)

The Minister's reply was reported verbally at the September meeting.

(1) Largs & Millport Weekly News 11th April 2011

<http://www.largsandmillportnews.com/news/roundup/articles/2011/04/11/412213-hunterston-nuclear-cango-to-2021/>

(2) Largs and Millport Weekly News 1st September 2010

<http://www.largsandmillportnews.com/news/roundup/articles/2010/09/01/404629-hunterston-unions-wantnew-nuclear/>

(3) See annex here: [http://www.no2nuclearpower.org.uk/news/SAFE\\_ENERGY\\_No53.pdf](http://www.no2nuclearpower.org.uk/news/SAFE_ENERGY_No53.pdf)

(4) Scotsman 12th December 2007 <http://news.scotsman.com/latestnews/SNP-under-fire-forflipflop.3589520.jp>

(5) Scottish Government Press Release 18th May 2011

<http://www.scotland.gov.uk/News/Releases/2011/05/18093247>

(6) Times 1st July 2011 <http://www.thetimes.co.uk/tto/news/uk/scotland/article3080652.ece>

(7) Times 1st July 2011 <http://www.thetimes.co.uk/tto/news/uk/scotland/article3080652.ece>

## Dounreay Particles

The Scottish Environment Protection Agency (Sepa) has decided to give up on its aim of returning the seabed near Dounreay to a "pristine condition". The Agency has admitted that Radioactive contamination that leaked for more than two decades from Dounreay will never be completely cleaned up. To do so, it said, could cause "more harm than good". SEPA opted instead to encourage remediation "as far as is practically achievable" but to abandon any hope of removing all the radioactive pollution from the seabed. (1)

Since 2008, over 2,300 radioactive particles have been recovered from the seabed, with 351 removed by a remotely operated underwater vehicle last summer. Provisional tests suggest that 38 of these are large enough to be a "significant" risk to humans. (2) Since 1983, over 480 particles have also been found on three local beaches and the Dounreay foreshore.

Stan Blackley, chief executive of Friends of the Earth Scotland, said: "Once again, we see the nuclear industry causing a problem it can't solve, and dumping the cost and consequence on the rest of us."

(1) Guardian 21<sup>st</sup> September 2011 <http://www.guardian.co.uk/environment/2011/sep/21/scottish-nuclear-leak-clean-up?CMP=EMCENVEM1631>

(2) Herald 21<sup>st</sup> September 2011 <http://www.heraldscotland.com/news/transport-environment/seabed-may-never-be-free-from-nuclear-plant-waste-1.1125164>

## Plutonium Transports Approved

The proposal to move “breeder material” by train from Dounreay to be reprocessed in the old Magnox reprocessing plant at Sellafield has been approved by the Nuclear Decommissioning Authority (NDA). (1) Trains are to start moving next summer. (2) Forty-four tonnes will be moved in about 40 journeys between Scotland and Cumbria over a four or five year period. (3) The NDA will now need regulators to approve the plans before they start moving the nuclear fuel. (4)

The material which formed the uranium-238 blanket in the Prototype Fast Reactor at Dounreay is not thought to be terribly radioactive, but there is concern the plutonium formed by the neutron bombardment of the uranium could be a prime target for theft. The NDA says the exact timing of the trains and security measures will remain confidential.

The breeder material represents only half of the stock of nuclear fuel Dounreay would like to get rid of. (5) Dounreay's other materials containing plutonium are the subject of an NDA assessment of how best to manage them. One of the options is to transport yet more to Sellafield. The NDA is expected to publish a paper on the assessment soon. (6)

John Large condemned the proposed transports. He said: *“We’re talking about bomb-grade material that would be a target for terrorists. It is also fuel from an experimental reactor which will have got broken up and will have been in storage in an uncertain condition. It will be very difficult to inspect it before it is transported and the only safeguard is based on their assumption that they would not encounter an accident with a big enough impact to break open the flask.”* (7)

The NDA told the BBC that Councils would be advised in advance about the movement of the material by rail. Local authorities would receive some information to pass on to communities. However, the NDA said the exact timings of the trains and security measures would remain confidential. (8) Answering fears from Nuclear Free Local Authorities that the Direct Rail Service trains could prove a potential target for terrorists, an NDA spokesman said: *“Transporting spent fuel by rail is a tried, trusted and safe method proven over many years. The flasks have withstood the most severe high speed collision tests.”* (9)

Dr Adrian Simper, the NDA’s head of strategy told Highland Council’s transport, environmental and community services committee that publicising the schedule could increase the risk of terrorists targeting the trains. However, Dr Simper admitted that the number of rail lines it could use through the region were limited. The breeder material will be stored in steel containers weighing 55 tonnes, with the lid alone 10 tonnes in weight. They will be towed by one train and accompanied by a back-up train if the first one fails for any reason. (10)

Plans are now being drawn up to construct a rail head 25km south-east of Dounreay at Georgemas Junction where the north-bound rail link from Inverness splits into the two lines that serve Wick and Thurso. Work on the rail-head is expected to start soon. (11)

Dr Simper told Highland Councillors that permission will also be sought, subject to a further consultation, to transport around 70 tonnes of nuclear fuel from the Prototype Fast Reactor and other un-irradiated material. This will mean a total of around 90 rail journeys over the next five years. (12)

Anti-nuclear campaigner Tor Justad said: *“In this proposal I am concerned about the safety aspects of transporting what is a dangerous material long distances across rural parts of Scotland. In the Highlands there are long distances to emergency services and so on. It's very much of concern to me and to lots of people in the Highlands. People living along that route who had very little information so far will be extremely concerned about this prospect.”* (13)

Rob Gibson, SNP MSP for Caithness, Sutherland and Ross, has raised concerns about whether the northern railway line is modern enough to cope with the radioactive cargo. He says *“the plan to*

*remove highly radioactive material from Dounreay is widely welcomed*”, but the rail line has not been modernised to mainline standards. Continuous rails and a modern signalling system are needed. (14)

- (1) STV 21st November 2011 <http://news.stv.tv/scotland/highlands-islands/281153-trains-will-transportnuclear-fuel-from-dounreay/>
- (2) BBC 21st Nov 2011 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15825467>
- (3) Carlisle News and Star 22<sup>nd</sup> Nov 2011 <http://www.newsandstar.co.uk/news/nuclear-fuel-to-be-taken-by-train-through-cumbria-from-scotland-1.899495?referrerPath=/news-round-up-1.50001>
- (4) Scotsman 22nd Nov 2011 [http://www.scotsman.com/news/transport/dounreay\\_nuclear\\_fuel\\_set\\_to\\_be\\_taken\\_from\\_scotland\\_by\\_train\\_1\\_1978061](http://www.scotsman.com/news/transport/dounreay_nuclear_fuel_set_to_be_taken_from_scotland_by_train_1_1978061)
- (5) DSRL 21<sup>st</sup> Nov 2012 <http://www.dounreay.com/news/2011-11-21/nda-to-begin-returning-fuel-to-uk-stocks>
- (6) BBC 22nd Nov 2011 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15836192>
- (7) John O Groat Journal 23<sup>rd</sup> November 2011 <http://www.johnogroat-journal.co.uk/News/Green-light-for-transfer-of-spent-nuclear-fuel-from-Dounreay-22112011.htm>
- (8) BBC 22nd November 2012 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15836192>
- (9) Whitehaven News 12<sup>th</sup> Jan 2012 <http://www.whitehavennews.co.uk/news/30m-scottish-n-waste-on-cards-1.914155?referrerPath=news>
- (10) John O Groat Journal 20<sup>th</sup> Jan 2012 <http://www.johnogroat-journal.co.uk/News/Council-told-of-terrorist-fears-over-transport-20012012.htm>
- (11) CORE Briefing 22<sup>nd</sup> Dec 2012 <http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=298>
- (12) Herald 20<sup>th</sup> January 2012 <http://www.heraldscotland.com/news/environment/dounreay-nuclear-material-must-be-sent-to-cumbria.1327028840>
- (13) STV 19th Jan 2012 <http://news.stv.tv/scotland/highlands-islands/294257-plans-for-rail-transport-of-nuclear-waste-are-outlined/> See also Dundee Courier 20<sup>th</sup> Jan 2012 <http://www.thecourier.co.uk/News/National/article/20413/nuclear-decommissioning-authority-reveals-plan-to-move-dounreay-material-through-heart-of-scotland.html>
- (14) North Star 26<sup>th</sup> Jan 2012 <http://www.north-star-news.co.uk/News/Is-rail-track-safe-for-nuclear-trains-7561983.htm>

## Dounreay Shorts

- Friends of the Earth Scotland and the Northern Isles local authorities agree that the planned series of nuclear waste shipments between Caithness and Belgium should be stopped. 153-tonnes of Intermediate-level Waste are due to be moved in 21 shipments over the next four years. Spent fuel from the state-owned Belgian research reactor, BR2 was sent to Dounreay for reprocessing until the reprocessing plant closed down in March 2004. The return of waste to research reactors in Germany (235 tonnes) and Australia (76 tonnes) is dependent on discussions taking place with the UK and Scottish governments. But the German and Australian reactor operators would prefer the material being returned in vitrified form, which cannot be done at Dounreay. This could involve a “like-for-like” deal being struck and an equivalent amount of waste being shipped out from the Sellafield plant in Cumbria. (1)
- A pinhole breach of a pipe caused a leak of about a litre of caustic radioactive fluid at Dounreay in October. The radioactive liquid effluent leaked inside a treatment facility which is used for the “destruction” of the sodium/potassium liquid metal coolant. To date Dounreay Site Restoration Ltd (DSRL) has destroyed more than three-quarters of the 57 tonnes of primary liquid metal coolant, and expects to complete the job by March 2012. (2) The work is seen as one of the greatest priorities in the clean-up of the UK nuclear industry and staff has worked in shifts around the clock during the Christmas and New Year period to keep it on track. The toxic metal is lifted in batches from inside the reactor and its six miles of cooling pipes. According to Dounreay it is then processed through a purpose-built chemical plant to neutralise the alkalinity and extract the caesium contamination, leaving a salty water that can be discharged safely to sea. (3)

- WORK has started on building the £100 million low level waste dump at Dounreay with six 65ft-deep vaults, each covering an area the size of a football pitch. Around 100 jobs are expected to be created in the construction of the facility which will be the first of its type to be built in Scotland. (4) SEPA is expected to start a consultation on the disposal of low level waste at the new dump in March. (5)
  - A haulage contractor was suspended from the Dounreay approved list after a lorry driver – on his way to the site to pick up radioactive material – was discovered driving while disqualified. (6)
  - Traces of radioactive contamination were found on the shoes of workers as they were leaving a building which they were preparing for demolition. DSRL launched an investigation. It said that the building is in a "controlled" area, where contamination is possible, and controls are in place to manage it. (7)
  - The Vulcan submarine nuclear reactor test site at Dounreay could be scaled down, or closed and demolished after 2015, the Ministry of Defence (MoD) has said. (8) But Rolls-Royce, which operates the reactor, has assured local MP John Thurso that it is committed to stay in Caithness beyond 2015. The company also pointed out the site has “high-value work to 2030 and beyond”. (9)
- (1) John O Groat Journal 20<sup>th</sup> Sept 2011 <http://www.johnogroat-journal.co.uk/News/Protest-at-Dounreay-nuclear-waste-gamble-20092011.htm>
  - (2) BBC 14th October 2011 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15300902> & Herald 14<sup>th</sup> Oct 2011 <http://www.heraldscotland.com/news/home-news/nuclear-fluid-leak-blamed-on-pinhole-in-pipework.15463131>
  - (3) Herald 11<sup>th</sup> Jan 2012 <http://www.heraldscotland.com/news/home-news/dounreay-nuclear-clean-up-process-close-to-completion.16421777>
  - (4) Herald 26<sup>th</sup> November 2011 <http://www.heraldscotland.com/news/home-news/work-starts-on-100m-tomb-for-dounreay-nuclear-waste.15943529>
  - (5) BBC 31<sup>st</sup> Jan 2012 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-16812924>
  - (6) John O Groat Journal 18<sup>th</sup> Nov 2011 <http://www.johnogroat-journal.co.uk/News/Banned-driver-was-due-to-transport-radioactive-material-from-Dounreay-18112011.htm>
  - (7) Rutherglen Reformer 27<sup>th</sup> Jan 2012 <http://www.rutherglenreformer.co.uk/rutherglen-news/scottish-news/2012/01/27/contamination-found-at-nuclear-site-63227-30211261/>
  - (8) BBC 2<sup>nd</sup> November 2011 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15560644> & BBC 4<sup>th</sup> November 2011 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15573353>
  - (9) John O Groat Journal 16<sup>th</sup> November 2011 <http://www.johnogroat-journal.co.uk/News/Rolls-Royce-offers-jobs-pledge-to-Far-North-16112011.htm>

## **Torness**

EDF Energy has been reprimanded by the Office for Nuclear Regulation (ONR) for a series of safety lapses at the Torness, including a “shortfall” in its arrangements for checking safety valves and for inadequacies in addressing concerns about the state of radioactive waste discharge pipes following a leak. The ONR has also expressed concern over slow progress in introducing self-closing “hazard barrier doors” to prevent large releases of hot gas. And it has urged EDF to improve its early warning systems after a “jellyfish blockage” caused Torness to be shut down last June.

Caledonian Mercury 12th Jan 2012

<http://biztech.caledonianmercury.com/2012/01/12/edf-energy-reprimanded-for-safety-lapses-at-torness-nuclear-plant/>

Rob Edwards 12th Jan 2012

<http://www.robedwards.com/2012/01/reprimand-for-safety-lapses-at-torness-nuclear-plant.html>



## Dalgety Bay

Officials from the MoD visited Dalgety Bay in Fife at the end of January to explain what they plan to do about radioactive particles found on the beach there. The Scottish Environment Protection Agency (SEPA) has given the MoD until the end of February to devise a plan to make the beach safe. If no plan emerges SEPA will declare the land contaminated. Over the past few months more than 400 radioactive particles have been found and part of the shore was cordoned off in October for further investigation.

But a solution to the radioactive contamination problems appears to be no closer. UK defence minister Andrew Robathan said the MoD was continuing to work on a credible plan but he gave no details. He also said the MoD was working in a voluntary capacity with SEPA and does not at present accept full liability for the problem.

Both Gordon Brown MP and Annabelle Ewing MSP have expressed concern about the failure of the MoD to accept full responsibility. If SEPA does declare the area as "Radioactive Contaminated Land", it is understood this would be the first time it has happened in the UK. (1)

The pollution appears to have originated from the radium on old military aircraft dials that were burnt and dumped as landfill in the area. Radioactive particles are being washed ashore at the rate of about a hundred a year. Numerous surveys have been carried out on the beach since radiation was first discovered at Dalgety Bay in 1990, but previously the highest level of radiation measured in the area was 1.1 megabecquerels. In a recent health assessment, SEPA warned that children who ingest them could suffer a significant risk of cancer in later life. (2) Then on 12<sup>th</sup> October 2011 Fife Council cordoned off an area of foreshore at Dalgety Bay and erected warning signs after SEPA discovered a highly radioactive lump of metal near a public footpath. The lump of metal was ten times more radioactive than anything found in the vicinity before - ten megabecquerels. (3)

Between September and early November, SEPA found and removed over 400 radioactive particles from near the footpath and from around the slipway of a popular local yachting club. That brings the total number found on the foreshore since 1990 to more than 1800, but most were not as radioactive as the lump of metal. (4) However, in December SEPA unearthed three more highly radioactive fragments, including one that was a massive 76 times higher than earlier finds. Families were told to leave the beach while it was extracted, shielded and removed to a 4-inch thick lead box, which still emits radiation 20 times higher than normal background levels. The particles found recently at Dalgety Bay were by far the most active to be found on any public beach and similar only to those found on the Dounreay foreshore, which is closed to the public. The big question is how many other particles like these remain in the environment.

SEPA has also expressed serious doubts about earlier surveys carried out by the MOD, which only managed to find 33 particles in September. (5) The MOD's foot dragging has been a constant annoyance for Scottish politicians and local people. The *Sunday Herald* revealed that MoD scientists had refused to analyse particles because of the risk it could give them cancer, yet have persistently played down the possible health effects for members of the public. The MoD has been resisting demands to pay for a clean-up. (6) Helen Eadie, a local MSP and resident of Dalgety Bay, said there had been a change in the Ministry of Defence's attitude since the budget cuts. "*Understandably the community is anxious. There is a real sense of anger that the Ministry of Defence is the partner here that is doing the least to address the concerns of the community,*" she said. (7)

The Guardian revealed at the end of December that at least 15 sites across the UK have been contaminated by radioactivity from Second World War military activities. A dozen of the sites, which include current and former air and naval bases, have not been identified before by the MoD. Some are accessible by the public or being developed for homes or businesses, though the potential risks are unclear. (8)

In a response to NFLA the Minister Andrew Robathan MP said the MoD wrote to SEPA at the end of December setting out its proposals for dealing with the problem in consultation with an expert group set up by SEPA.

- (1) BBC 31st Jan 2012 <http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-16806519>  
Scotsman 1<sup>st</sup> Feb 2012  
[http://www.scotsman.com/news/environment/radioactive\\_beach\\_will\\_take\\_3\\_years\\_to\\_clean\\_up\\_says\\_mod\\_1\\_2088064](http://www.scotsman.com/news/environment/radioactive_beach_will_take_3_years_to_clean_up_says_mod_1_2088064)
- (2) Scotsman 13th Oct 2011  
[http://www.scotsman.com/news/environment/radioactive\\_lockdown\\_on\\_the\\_shores\\_of\\_fife\\_1\\_1909857](http://www.scotsman.com/news/environment/radioactive_lockdown_on_the_shores_of_fife_1_1909857)
- (3) Rob Edwards.com 13<sup>th</sup> October 2011 <http://www.robedwards.com/2011/10/public-barred-from-beach-by-radiation-fears.html>
- (4) BBC 14<sup>th</sup> Oct 2011 <http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-15306597>
- (5) Independent 12th Nov 2011 <http://www.independent.co.uk/news/uk/home-news/oh-i-do-like-to-be-beside-the-radioactive-seaside-6261022.html>
- (6) Sunday Herald 16<sup>th</sup> October 2011 <http://www.heraldscotland.com/news/environment/the-cancer-fears-keeping-mod-scientists-from-a-toxic-scots-beach.15469838>
- (7) Sunday Herald 4th December 2011 <http://www.robedwards.com/2011/12/revealed-the-dangerous-radioactivity-that-the-mod-missed.html>
- (8) Guardian 20th December 2011 <http://www.robedwards.com/2011/12/revealed-15-military-sites-contaminated-by-radioactivity.html>

### **Submarine Dismantling Project Consultation**

The MoD's Submarine Dismantling Project Consultation began at the end of October and is due to finish on 17<sup>th</sup> February 2012.

The MoD is basically asking for views on whether the dismantling should be carried out at Rosyth or Devonport or a combination of the two. It also wants to know which of three dismantling methods should be employed:

- (1) Separation of the reactor compartment followed by interim storage on land.
- (2) Removal of the Reactor Pressure Vessel from the Compartment followed by storage on land.
- (3) Removal of the Reactor Pressure Vessel followed by size reduction and packaging with storage until the geological disposal facility is available.

The consultation is looking at what to do with the decommissioning waste from 27 nuclear submarines - ten stored afloat at Devonport and seven at Rosyth with a further 10 submarines still in service. But the new Astute Class submarines currently being brought into service and the next planned class of submarines (known as Successor) are not within the consultation's scope. The Nuclear Submarine Forum, a coalition of NGOs, argued that it was irresponsible and unethical to build new submarines before a solution had been found for how to deal with the radioactive waste they would generate.

Submarine reactor compartments, even with the spent fuel removed, still contain considerable quantities of radioactivity. There is a general consensus this waste cannot be left in decommissioned submarines stored afloat indefinitely and that the time has come to remove the waste so that it can be stored in passively safe, dry conditions rather than left in the submarines as their condition deteriorates over time.

As with other nuclear waste management issues the NFLA will be responding by analysing how well the proposals meet environmental principles agreed in October 2004 at the NFLA Annual General Meeting in Hull.



All of the options ultimately end with waste being sent to a deep geological disposal facility. There is no recognition of the fact that Scottish Government policy is opposed to deep disposal, although the policy does not apply to MoD waste. It might have been sensible for the consultation document to address this.

Based on the environmental principles discussed above any plan which involves diluting and dispersing radioactive waste should be rejected in favour of a policy of concentration and containment. Although the consultation documents claim that both worker doses and planned discharges are predicted to remain within currently permitted limits for the RPV Removal option, it fails to make a comparison with the RC removal option or argue that it meets the “As Low As Reasonably Achievable” (ALARA) principle, or uses the Best Available Techniques and applies the precautionary principle. The fact that discharges of radioactivity into the environment are expected to remain within currently permitted limits is beside the point. Applying the environmental principles outlined in the Government’s Statutory Guidance to the Environment Agency would suggest that the technique which involves least discharges into the environment should be the option chosen.

The RC Separation option has “*the lowest expected radiological dose to workers ... because the Reactor Compartment would not be taken apart until some point after 2040, allowing maximum radioactive decay to take place*”. Which means it will also involve the lowest discharges of radioactivity to the environment.

**This argues for the Reactor Compartment Separation Option.** Once you start cutting into the reactor compartment to remove the reactor pressure vessel discharges to the environment will rise as will doses to workers.

Wastes should ideally be managed on-site where produced (or as near as possible to the site) in a facility that allows monitoring and retrieval of the wastes. This is known as the Proximity Principle. The Scottish Government says the Proximity Principle should be applied to define the location of facilities in order to minimise potential risk and reduce any potential environmental impacts. This should not outweigh other considerations including safety, technical feasibility of specific locations and ability of communities and environments to accommodate developments without experiencing significant negative effects.<sup>1</sup>

**This would argue for storing the reactor compartments at Rosyth and Devonport in monitorable retrievable stores** from the decommissioned submarines currently stored afloat unless there are specific local conditions which affect the ability of the community living close by to accommodate the compartments.

Unlike most civil nuclear sites both Rosyth and Devonport dockyards are located in urban areas so would have a good case for arguing that their communities are not able to accommodate the waste.

The MoD argues for the Reactor Pressure Vessel Removal option on the grounds that storing RPVs would take up much less space. Heavy lifts and barges would not be required to move the submarines once the RPV has been removed because the submarines can still be floated to a recycling facility. Reactor compartments weigh 700 tonnes. MoD argues that: "Due to its size it would be difficult and very expensive to move the RC, so it is assumed in this option that it would be stored where it is removed". MOD suggests it's easier to move the intact submarines, although it admits they have been moved in the US, Russia and France.

Fife Council carried out its own consultation exercise in the area around Rosyth— dubbed the Rosyth Referendum. This has given an overwhelming no to nuclear waste from redundant submarines being stored locally. The council will now recommend that these submarines and all their nuclear waste be moved out of Rosyth permanently.

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<sup>1</sup> <http://www.scotland.gov.uk/Resource/Doc/338695/0111419.pdf> para 3.03.10

Local SNP councillor Douglas Chapman says the submarines have “...*been in our backyard for long enough and it's time to utilise the part of the dockyard the subs use for more sustainable, commercial activity that would create many more jobs. Weighing heavily on our mind is the dreadful state of affairs that has been allowed to happen at Dalgety Bay and if the MoD and the British Government have not taken that issue seriously enough, you can imagine why people around Rosyth would want this nuclear legacy removed as soon as practically possible.*”

Over 7,000 questionnaires were distributed giving householders in the area three options:

- That Rosyth dockyard should not carry out any dismantling or storage work and the submarines should be removed immediately.
- Rosyth carries out the dismantling work but not the storage of nuclear waste.
- Both the dismantling and storage is carried out at the Fife yard.

67% were opposed to the last options. Some 44% either agreed or agreed strongly that the subs should be removed immediately and Rosyth should not be involved in the dismantling or storage work and 45% thought Rosyth should carry out the dismantling work, but not store the waste afterwards. (1)

At the other end of the country Ian Avent, of Campaign Against Nuclear Storage and Radiation (CANSAR) says Plymouth could effectively become a "nuclear scrapyards" with waste being stored in Plymouth for 100 years. Mr Avent said: "What impact will this have on a city with aspirations as a world city of tourism? Plans for an underground storage of waste are still only on paper and I think forecasts that it will be ready by 2040 are optimistic." CANSAR wants waste dispersed at several sites, including Scotland. (2)

The consultation documents are available here:

<http://www.mod.uk/DefenceInternet/MicroSite/DES/OurPublications/SDP/PubConsultDocs/>

Nuclear Submarine Forum Briefing:

[http://www.nuclearsubwaste.net/index.php?option=com\\_content&view=article&id=119&catid=44](http://www.nuclearsubwaste.net/index.php?option=com_content&view=article&id=119&catid=44)

- (1) Dundee Courier 30<sup>th</sup> Jan 2012 <http://www.thecourier.co.uk/News/Fife/article/20564/local-consultation-finds-strong-resistance-to-roseyth-being-used-for-nuclear-storage.html>
- (2) Western Morning News 23<sup>rd</sup> Jan 2012 <http://www.thisisdevon.co.uk/story-15010575-detail/story.html>

### **Anti-Scottish spin regarding waste**

Thousands of tonnes of deadly nuclear waste would be returned to Scotland from Cumbria if Scotland votes for independence, according to Jamie Reed, the Labour MP for the constituency which includes Sellafield. He claims it would be against British law for Europe's largest atomic plant to retain toxic material from a "foreign country". He said an independent Scotland would have a "legal and moral responsibility" to take back waste. Mr Reed is also calling for the transfer of 50 train loads of nuclear waste from Dounreay to Cumbria to be postponed until after the referendum. (1) *"If Scotland leaves the United Kingdom either the waste must go back to Scotland or there will have to be an Act of Parliament to set up an elaborate new framework where the Scottish taxpayer is responsible for their share of the cost of keeping the waste in England."*

Reed says under British law this country does not dispose of waste from foreign countries, but in fact quite a lot of foreign waste will remain at Sellafield from reprocessing contracts which were signed before Tony Benn introduced the waste return rule.

Concerns have also been raised about Scottish nuclear waste being dumped at a landfill site in Cumbria. County councillor Tim Knowles said it "beggars belief" that the county is expected to be the dumping ground for very low level waste from Chapelcross. He told a council Cabinet meeting in

Kendal today that the authority had contacted the site director of Chapelcross and the head of the Scottish Government's radioactive waste team to express concern over very low level and asbestos waste finding its way into the Lillyhall site. The landfill - operated by the Waste Recycling Group - was granted permission by the Environment Agency earlier this year to accept high volume very low level radioactive waste, permission which the county council opposed. (2)

County councillors are said to be furious, especially as the Scottish Government is against nuclear power and Scottish and Southern Energy has pulled out of the consortium to build a nuclear power station at Sellafield. (3)

- (1) Express 22<sup>nd</sup> January 2012 <http://www.express.co.uk/posts/view/297168>  
i-Nuclear.com 22<sup>nd</sup> January 2012 <http://www.i-nuclear.com/2012/01/22/scottish-independence-drive-threatens-uk-nuclear-waste-plans-gdf-development/>
- (2) Carlisle News & Star 13<sup>th</sup> October 2011 <http://www.newsandstar.co.uk/news/business/concern-over-scottish-nuclear-waste-being-dumped-at-cumbrian-tip-1.887439?referrerPath=home&mid=501283>
- (3) Whitehaven News 27<sup>th</sup> October 2011 <http://www.whitehavennews.co.uk/news/scottish-send-nuke-waste-to-our-landfill-1.891497?referrerPath=news>

### **Renewable Shorts**

Three Scottish businesses - Ice cream maker Mackie's, clothing chain M&Co and leaflet distributor EAE - have joined WWF Scotland's crusade to encourage firms to erect their own wind turbines to produce electricity. Mackie's and EAE have both already hoisted turbines at their sites, while M&Co last year launched a subsidiary to help farmers buy devices. M&Co will then purchase the electricity to power its shops.

Scotsman 4<sup>th</sup> Jan 2012

[http://www.scotsman.com/business/ice\\_cream\\_and\\_clothes\\_shops\\_join\\_the\\_turbine\\_campaign\\_1\\_2035463](http://www.scotsman.com/business/ice_cream_and_clothes_shops_join_the_turbine_campaign_1_2035463)

The Edinburgh-based company Aquamarine Power has secured £7 million of new funding towards development of its wave energy device - a major step towards the commercialisation of its Oyster wave device. It comes from existing shareholders Scottish & Southern Energy, power firm ABB and Scottish Enterprise, which hopes to come up with a further £18m to take the firm to commercialisation in 2014.

Scotsman 28th Sept 2011

[http://www.scotsman.com/business/salmond\\_announces\\_35m\\_wind\\_power\\_fund\\_1\\_1878224](http://www.scotsman.com/business/salmond_announces_35m_wind_power_fund_1_1878224)

An ambitious £1.75 billion scheme enabling Scottish electricity generators to use Norway as a giant storage "battery" and helping to keep down domestic bills has taken a dramatic step forward, it has emerged. NorthConnect, the company formed to examine linking Scotland and Norway with a 570km-long subsea electricity cable, has disclosed that it is applying to National Grid to get a connection into Britain's grid at Peterhead.

Times 29th Sept 2011

<http://www.thetimes.co.uk/tto/news/uk/scotland/article3178797.ece>

Kawasaki Heavy Industries (KHI) intends to test its new tidal energy system at the world-leading European Marine Energy Centre (EMEC) in Orkney.

eGov Monitor 20<sup>th</sup> October 2011

<http://www.egovmonitor.com/node/44281>

First Minister Alex Salmond announced an £18m boost for marine renewable to be used to establish a wave and tidal commercialisation fund to help develop Scotland's first commercial wave and tidal power arrays. It forms part of the £35m provided to enterprise agencies by the Scottish Government

over the next three years to directly support the marine and tidal industry including planned projects in the Pentland Firth and Orkney Waters.

Edie 25th Oct 2011

[http://www.edie.net/news/news\\_story.asp?id=21154&title=%26pound%3B18m+fund+to+%26quot%3Bunleash+power+of+Scotland's+seas%26quot%3B+](http://www.edie.net/news/news_story.asp?id=21154&title=%26pound%3B18m+fund+to+%26quot%3Bunleash+power+of+Scotland's+seas%26quot%3B+)

Dumfries and Galloway Council is seeking approval to borrow up to £2.2m to spend on installing solar panels on a number of its properties. A report claims saving to electricity costs and income from generation could boost its budget by more than £6m. The council also wants to investigate further renewable energy options which could be exploited. Among the possibilities being explored is a small hydro-electric scheme at the Caul on the River Nith in Dumfries. The report to the policy and resources committee warns that the council must act quickly to ensure the best return on its investment.

BBC 12th Jan 2012

<http://www.bbc.co.uk/news/uk-scotland-south-scotland-16509219>

PLANS to build the world's largest wave farm off Orkney have moved closer after a deal was signed between two major developers. Alstom, based in France, and SSE Renewables have signed a joint venture agreement to develop the Costa Head Wave Project north of the Orkney mainland. The site, which could create up to 200 Megawatts (MW) of wave power, is in the Crown Estate's Pentland Firth and Orkney Waters Strategic Area.

Business Green 17th Jan 2012

<http://www.businessgreen.com/bg/news/2139211/alstom-sse-announce-plan-world-s-largest-wave-farm>

A £900,000 initiative is being launched to support rapid growth in the developing offshore wind supply chain. The expert support programme aims to help hundreds of Scottish firms capture a share of future investment in the emerging industry. The initiative is being announced by Scottish Enterprise chief executive Lena Wilson at Scotland's largest offshore wind conference in Aberdeen.

BBC 31st Jan 2012

<http://www.bbc.co.uk/news/uk-scotland-scotland-business-16790198>

Scotland's first commercial wavefarm could be built off the Western Isles within four years. The multimillion-pound development to the west of Lewis will be capable of powering 7,000 homes – more than meeting the requirements of a town the size of Stornoway. Supporters say it will create jobs in the region and secure the future of the Arnish fabrication yard, which has already built sections for several wave power machines.

P&J 12th Oct 2011

<http://www.pressandjournal.co.uk/Article.aspx/2474726>