UK utilities are preparing to launch another dash for gas that could lead to painful hikes in the cost of energy, according to investment analysts UBS. The UK has to replace 13GW of electricity capacity by 2015, but despite positive signals in the Energy White Paper, UBS argues that the nuclear industry has no hope of meeting the gap in time. Economics are firmly in favour of new gas generation, which tends to be waved quickly through planning procedures and is relatively cheap to build. UBS believe 70% of the 13GW of capacity required will be supplied by gas suggesting that the recent period of falling gas prices may prove depressingly short-lived. (1)

Eon also warns that gas prices are likely to rise well above today’s levels. The Energy White Paper set out plans to reduce the UK’s reliance on gas imports in 2020 from 80% to 60%, but industry analysts are sceptical about whether this can be achieved. (2) Even EDF Energy, the electricity supplier most enthusiastic about investing in new reactors, expects to have only one such plant on stream by 2020. The subsidiary of the French company has set out plans to reduce the carbon dioxide emitted for each unit of electricity it generates by 60 per cent by 2020. It is likely to close two coal-fired stations over the next decade because they will become uneconomic under EU emissions regulations. That will lose EDF around 4,000MW which it envisages replacing with two large gas-fired stations, one nuclear station, and renewables, mostly wind, each around 1,000MW. It aims to bring one new reactor on stream by the end of 2017. EDF also envisages offering smart meters, insulation and other services to its customers. (3) CEO Vincent de Rivaz later told The Financial Times, he would like four new reactors, opening one every two years after the first one, although EDF might share the ownership of some or all of them. (4)

Poyry Energy Consulting (previously Ilex) believes the policies outlined in the Energy White Paper might well spell the end of nuclear power in the UK. (5) There is little in the way of positive action for delivering the Government’s objectives. Poyry points to the Government’s determination not to subsidise new reactors, but highlights the statement about companies meeting their full “share” of waste management costs as perhaps leaving open a small window for subsidy. Poyry agrees with UBS that, because much of the new capacity required will be needed before 2020, utilities will most likely build new gas-fired generation. Poyry says the Government needs to set a high and long-term price for carbon dioxide emissions before there is an economic case for new reactor construction. (6)
An Oxford University task force, chaired by Lord Patten of Barnes, complains that the government has no coherent strategy for replacing one-third of UK electricity generation. The report says policy is a hotchpotch of measures unlikely to deliver the government’s vision on climate change, energy security and poverty. Its equivocation is deterring necessary policy commitments and investments in renewables and carbon-neutral technologies. Britain’s energy policy just doesn’t stack up. The study warns that Britain is not doing enough to prepare for a future without large-scale rebuilding of nuclear power plants. The task force says if there isn’t going to be a new large nuclear programme, then there needs to be large-scale investment in alternative low-carbon technologies. But the report warns: "Current UK performance in energy investment is slow, cautious and out of step with the urgency of the problem.” (7)

Meanwhile, the UK Energy Research Centre warns that investment in nuclear and renewables may not be forthcoming because the Government has failed to understand the needs of investors. The academics argue that the Government’s objectives rely on the private sector investing tens of billions of pounds. Robert Gross of Imperial College says the Government has somehow to persuade the private sector to invest in nuclear reactors and renewables when what it wants to do is invest in new gas-fired stations. Investors remain sceptical about the appeal of new reactors. (8)

Fluor’s senior vice president for nuclear operations has warned that the UK needs to invest in manufacturing capacity and skilled labour if it is to embark on building new nuclear power plants. (9) A lack of skilled labour could hamper plans for new reactors. (10) British Energy Chief Executive, Bill Coley, has also warned that the world faces a skills shortage for building new nuclear plants. He says he thinks there will be choke points, such as at the height of construction for the 2012 Olympics. (11)

(2) FT 11th June 2007
http://www.ft.com/cms/s/e00a9276-17b7-11dc-86d1-000b5df10621.html
(3) FT 5th June 2007
http://www.ft.com/cms/s/bce825ec-1302-11dc-a475-000b5df10621.html
(4) FT 6th June 2007
(6) Reuters 11th June 2007
http://uk.reuters.com/article/domesticNews/idUKL1113886120070611?rpc=401
Oxford University Press Release 4th June 2007
http://www.admin.ox.ac.uk/po/070604.shtml
(8) as (4) and “Investing in Electricity Generation: the role of costs, incentives and risks”. UKERC, June 2007, http://www.ukerc.ac.uk/content/view/410/014
(9) Telegraph 7th June 2007.
(10) Construction News 31st May 2007
http://www.cnplus.co.uk/news/news_article/?aid=60080&sid=107
Personnel Today 6th June 2007
http://uk.reuters.com/article/businessNews/idUKL0614222120070606?feedType=RSS
2. Planning: Government speaks the ‘opposite of the truth’.

Ruth Kelly's assertion that the planning white paper is designed to strengthen local democracy has been described as the ‘opposite of the truth’ by the Campaign to Protect Rural England (CPRE). The very purpose of the paper is to reduce local control in order to accelerate the consent procedure for major infrastructure projects (MIPs). So, for example, the power of consent for MIPs is transferred from local councils to a new quango, which will be led not by the local development plan but by predetermined national policy, from which it will be able to depart only when bound to by law. CPRE says the new quango could not refuse an application for a new reactor on the grounds, for example, that the government's policy overstates the need for nuclear power. The right of local people to participate fully in the inquiry process, including by giving evidence and cross-examining the developer's witnesses, is replaced by the sop of a right to be consulted by the developer, and an "open floor" soap box to permit them to voice their grievances.

The Civic Trust says the intentions in the planning white paper could not be clearer. It will abolish the requirement to demonstrate a need for major new developments. There will be a presumption in favour of development which will cripple the ability of local communities to have any effective role in the holistic planning of their areas. The white paper places primacy on economic development - it will severely limit local communities' ability to have any useful say in planning. The Civic Trust says the white paper is “piecemeal, ill-conceived and disjointed. An immediate return to the drawing board is urgently required”. (1)

A coalition of environmental and social organisations supported by over 2.3 million people has come together to fight these damaging proposals which it says are the result of the Treasury’s determination to rebalance the planning system in favour of business and away from environmental and social concerns. At a time when action on climate change and environmental protection is needed more than ever this rebalancing is a step in the wrong direction. The coalition intends to fight and defeat these proposals over the coming months. (2)

Nuclear Free Local Authorities have also expressed great concern about the proposals to take development control powers away from local councils in England and Wales and give them to an appointed Infrastructure Planning Commission. At the heart of the Planning White Paper are proposed grounds for giving or refusing the go-ahead for nuclear power stations, or other major infrastructure projects. (See for example para 3.14, p49.) Legal advice to the Nuclear Free Local Authorities is that this provides nuclear station developers with a well-nigh unassailable basis for approval of their projects but by contrast it leaves local authorities and their communities with an extraordinarily narrow and unlikely basis for a refusal i.e. actual illegality. (3)

(1) Guardian 5th June 2007
http://www.guardian.co.uk/letters/story/0,2095346,00.html
http://www.cpre.org.uk/campaigns/planning/planning-system/planning-system-our-concerns
http://www.nuclearpolicy.info/news/pr070606.php

3. Nuclear Siting
The Government has indicated that it is “more likely than not” that existing nuclear sites will house the next generation of nuclear power plants, despite MPs' fears that rising sea levels means the use of coastal sites is “asking for trouble.” During Trade and Industry questions a number of MPs raised concerns over the threat to coastal sites. Labour's Rob Marris (Wolverhampton S.W.) asked Alastair Darling to look at the appropriateness of building on coastal sites. “It is likely that by 2050 sea levels will have risen by 40 centimetres at least and that storm waves will get higher,” said Mr Marris. Darling replied that “…it is more likely than not that any new build would be on existing sites but an assessment would have to be made as to whether or not such an existing sites would be suitable for new building in the future.” (1)

Meanwhile Copeland’s MP Jamie Reed has categorically dismissed the Jackson Consultancy report which says it is not feasible to put even one new reactor on the Sellafield site. According to the Jackson report the need to erect new power lines over the Lake District to make connections to the national grid casts doubt over Sellafield’s suitability for a modern nuclear reactor. But Mr Reed says “This would be an engineering problem requiring an engineering solution and it is not insurmountable.” The MP revealed he was already in discussions with companies including electricity utilities who might be keen to finance new reactors at Sellafield. (2)

In an article for Regeneration and Renewal, Ian Jackson says the main difference between siting decisions taken today compared with the past is that the electricity industry is now privately run. This means that operators will want their reactors close to markets, with good grid connections and plentiful supplies of cooling water. An experienced labour force with a measure of support in the local community would also be a key factor. (3)

(1) East Anglian Daily Times 7th June 2007  
http://www.eadt.co.uk/content/eadt/politics/story.aspx?brand=EADOnline&category=Politics&tBrand=EADOnline&tCategory=zpolitics&itemid=IPED07%20Jun%202007%2013%3A03%3A27%3A887
(2) Whitehaven News 31st May 2007  
(3) Regeneration and Renewal, 8th June 2007.

4. Justification and Strategic Siting Assessment.

As well as the main government consultation on the future of nuclear power (1), there are also consultations on the Justification process and a combined consultation on a Strategic Siting Assessment and Strategic Environmental Assessment. (2) These are both dealt with together in a second document. The Government thinks it is prudent to start working on this facilitative action now – even though theoretically it hasn’t decided to definitely go-ahead with new nuclear stations – so no time is wasted. The deadline for responses is, as with the main consultation 10th October.

Justification is described as “a high-level assessment to determine the benefits and detriments associated with a particular class or type of nuclear practice”. A new practice is deemed to be justified if the benefits of its introduction outweigh the health detriment. The assessment is generic rather than site specific. In other words, applicants seeking justification for new nuclear power station technologies will need to demonstrate that any health detriment is offset by the benefits associated with the practice. Benefits can cover economic, social or other benefits.

The UK is also required under article 37 of the Euratom Treaty to provide the European Commission with information relating to any plan for the disposal of radioactive waste to make it possible to determine whether the implementation of such plan is liable to result in the radioactive contamination of another Member State.
The Government expects to publish guidance on the Justification Process for applicants in early 2008. At the same time it will also call for applications. It expects to be able to publish a decision in early 2009. If the Government receives applications for a number of different nuclear reactor technologies at the same time, it is expected that these will be dealt with together with the assessments set out in the same draft decision document. (3)

The Strategic Siting Assessment (SSA) will determine the suitability of potential sites for new reactors. Consideration of the environmental effects of the construction, operation and decommissioning of a nuclear power station would form a vital part of decisions on siting. The European Directive on Strategic Environmental Assessment (SEA) (4) also requires such factors to be taken into account in developing plans or programmes which will have consequences for the environment. The Government consultation is about the process to be used in carrying out the SSA. The SSA will conclude with the publication of a Policy Statement on siting, setting out detailed criteria together with a list of any proposed sites which have been assessed as meeting the criteria. Such a list would not preclude others from being put forward in future. The results of the SSA will inform a subsequent Governmental policy statement on siting for new nuclear power stations, as part of a potential National Policy Statement (NPS) on new nuclear power stations. The SSA policy statement is expected to be published around mid-2009, but a draft list of nominated sites is likely to be published for consultation on in the early part of 2009.

5. Micro-CHP

Micro-CHP boilers being developed could replace domestic central heating boilers and generate electricity as well as heat, using less energy than the standard heating boilers of today. (1) Projections suggest a rapid take-up of micro CHP, with perhaps 5-12 million units installed by 2020. This scale of market penetration could replace over half of the UK’s nuclear capacity, and generate electricity more cheaply. (2) Unfortunately this vision of the future received a setback earlier this year when one of the leading UK companies in this field, Microgen, which was a subsidiary of BG Group, was closed.

Delta Energy and Environment – an Edinburgh-based research company - has now produced a research brief on Micro-CHP following the Microgen closure. (3) The world market for residential scale Micro-CHP capacity is tiny at the moment, but Delta has documented over 25 products at various stages of development. Microgen aimed to have a wall mounted 1 kW Stirling engine product on the European market in 2008. So the closure of the company was a huge disappointment. There appears to be two reasons behind the closure - first, a change in how their parent company, BG Group, viewed the business; and second, an inability to find a partner to manufacture the core Stirling engine at the right cost.
But the technology is not expected to lie dormant at BG Group. The Stirling engine technology was licensed from Sunpower, and Delta says that several organisations are seeking to acquire this license from Sunpower, and the intellectual property developed by Microgen, in the near future.

Microgen was far from being the only micro-CHP product developer close to market. Indeed two companies’ products - designed for individual households - are already being sold to home owners. Markets for slightly larger products with up to 5 kW capacity are also established, primarily in Germany. Delta says 21,600 units were sold last year. Delta expects to see a small number of products enter markets in 2007 and 2008.

http://business.guardian.co.uk/story/0,,975564,00.html  
http://www.ippr.org.uk/publicationsandreports/publication.asp?id=152  
(3) The Closure of Microgen. A body blow for micro-CHP?  

6. Energy Service Companies

The chief executive of National Grid, the UK energy group, has called for a change in the way energy markets are regulated to encourage suppliers to sell less gas and electricity. In an interview with The Financial Times, Steve Holliday said efforts to cut carbon emissions through energy efficiency would fail without major regulatory incentives. "Energy companies have clearly been motivated by selling units of energy," he said. "You've got to turn this completely on its head." (1)

National Grid owns a large gas and electricity distribution business in the US, and its revenues are linked to how much energy is used by customers. Holliday said a new political awareness of the need to fight climate change was triggering changes in energy regulation in certain states, particularly New York and Massachusetts. Discussions are ongoing about how to change the regulatory framework to incentivise companies to promote energy efficiency. Holliday said the UK government and Ofgem should consider similar incentives. In the US, National Grid will spend £84m this year on energy efficiency measures - mainly helping people to use less energy. Mr Holliday said his group was moving towards being a supplier of "energy management services", rather than just energy.

Dr Bruce Tofield of the CRed Carbon Reductions Programme at the University of East Anglia says the expected closure of older coal- and nuclear-powered plants over the next several years should be the platform for a massive programme of demand reduction, enabled by the type of restructuring of the energy industry suggested by Holliday, which might be the single biggest step this country could make. (2)

As reported in Energy Review Update No.11, the Energy White Paper launched a consultation on the Carbon Emission Reduction Target (CERT) for 2008-2011, which will replace the Energy Efficiency Commitment, and proposes a doubling of energy suppliers’ current effort. Disappointingly it is only after 2012 that the scheme will evolve into one which transforms suppliers into energy service companies. And it is not until 2020 that the Government expects all householders to have been offered help to introduce energy efficiency measures to ensure all homes have achieved their cost-effective energy efficiency potential. (3)
Scottish and Southern Energy is launching a scheme to encourage its 7.7 million customers to use less energy. It plans to give consumers who cut their energy usage, vouchers that can be used to pay their bills or buy other energy-saving devices. Buying a low-energy appliance or installing loft insulation would attract a credit. The company is looking at extending the scheme, which is expected to come into operation at the beginning of August or September, to very efficient boilers. He said the company hoped the scheme would be cost neutral, with the reduced revenue and the cost of vouchers balanced by a fall in its customer churn rate. (4)

Meanwhile, Ikea is to give each of its 9,600 British employees six low-energy light bulbs. At a cost of £45,000 the project could save Ikea employees £400,000 per year. (5) And the world's leading technology companies have joined forces in an audacious scheme to drastically cut energy use by computers. The initiative, launched by Google and Intel, sets ambitious targets to cut the amount of electricity computers consume in half by 2010 – equivalent to shutting 20 coal-fired stations. The average PC wastes about half of the power it consumes, while servers squander around a third, according to officials at the Climate Savers Computing Initiative. (6)

(1) FT 9th May 2007
http://www.ft.com/cms/s/d260c4f4-fd01-11db-9971-000b5df10621.html
(2) FT 11th May 2007
http://www.ft.com/cms/s/a9978aba4-f5c-e11db-aff2-000b5df10621.html
(3) Consultation on Carbon Emission Reduction Target April 2008 - March 2011
(4) Guardian 1st June 2007
http://business.guardian.co.uk/story/0,,2092878,00.html
(5) Guardian 11th June 2007
http://business.guardian.co.uk/story/0,,2099891,00.html
(6) Telegraph 14th June 2007
http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2007/06/14/cngoogle114.xml

7. The solution is out there.

A new report from WWF concludes that known sustainable energy sources and proven technologies could be harnessed between now and 2050 to meet a projected doubling of global demand for energy services, while achieving the significant (in the order of 60%-80%) reductions in climate-threatening emissions required.

However, the policies needed to drive this transition are not yet in place, and may well be years away based on current progress. It is clear that time is now of the essence. In five years it may be too late to initiate a sustainable transition which could avert a breach of the two-degree threshold for avoiding dangerous climate change.

Energy Online 12th June 2007
http://www.energy-online.net/stories/articles/-/newsletter_stories/june/news/there_is_a_realistic_alternative_to_nuclear_says_wwf/
Climate Solutions: WWF’s Vision for 2050.

8. British Energy papers over the cracks

The government has raised £2.08 billion from the sale of part of its stake in British Energy. It has reduced its holdings from about 64% to 39%, and may reduce this further to 36%. In late May the government directed the Nuclear Liabilities Fund, which is in charge of nuclear clean-up and
officially holds the British Energy stock, to sell off the shares in an effort to diversify its portfolio and to raise money to cover costs. The net proceeds from the sale will go to the NLF, to ensure that it is better placed to meet its obligations in relation to the eventual decommissioning costs of British Energy’s existing nuclear power stations. (1)

Greenpeace accused the Government of pre-empting the results of the current consultation exercise by priming the energy market for nuclear. (2) If the Government eventually reduces its stake to 29.9%, British Energy will look much more like a private sector concern than it did in May 2007. It will be potentially a more attractive partner to those who want to join the nuclear programme. (3) The Daily Mail agreed that the sale dispelled any lingering doubts about the Government’s commitment to new reactors. (4)

British Energy says the interest shown by other companies in becoming a potential partner in building new reactors has been far broader and far deeper than expected. As well as the usual utilities such as RWE, Eon, Centrica, and EDF, the list probably also includes France’s Suez (which owns the Belgian nuclear company Electrabel (5)), French reactor builder Areva, and also some large electricity users. (6)

Chief Executive Bill Coley says he is "very pleased" with the condition of Hinkley Point which the company is in the process of restarting after months of maintenance. He also said he currently saw no reason why British Energy could not extend the lives of its Hinkley and Hunterston plants. A decision will be made before the end of next March. (7) Unfortunately for BE one of the Hunterston B reactors had to be shut down manually over the weekend of 10th June, after problems with controls that keep the delicate process at exactly the right temperature. The power station had been open for only a month after extensive repairs on cracked boiler tubes. (8)

Indicating changed times in Scotland, The Herald quoted a Scottish Executive spokesman saying:

"This illustrates the safety problems of nuclear power and underlines the wisdom of the Scottish government's energy strategy - based on our vast clean, green energy sources including renewables, clean coal and carbon capture. We look forward to celebrating Green Energy Day in the very near future when renewables exceed nuclear". (9)

(1) Platts Power in Europe, No.502, 4th June 2007
http://www.express.co.uk/posts/view/8347/Government+selling+nuclear+shares
(2) Guardian 31st May 2007
http://business.guardian.co.uk/story/0,,2091587,00.html?gusrc=rss&feed=24
(3) Guardian 31st May 2007
http://business.guardian.co.uk/story/0,,2091593,00.html
(4) Daily Mail 31st May 2007
http://www.thisismoney.co.uk/news/columnists/article.html?in_article_id=420865&in_page_id=19&in_author_id=1
(5) See http://www.nuclearspin.org/index.php/Electrabel
(6) Reuters/Planet Ark 31st May 2007
http://www.planetark.org/dailynewsstory.cfm/newsid/42270/story.htm
(7) Reuters 6th June 2007
http://uk.reuters.com/article/businessNews/idUKI061422212007070606?feedType=RSS
(8) Scotsman 12th June 2007
http://news.scotsman.com/index.cfm?id=915592007
(9) Herald 12th June 2007
9. Nuclear waste policy “incoherent and opaque”

The House of Lords Science and Technology Committee has branded the government's preferred institutional framework for dealing with nuclear waste "incoherent and opaque". (1) The report adds: "The government must acknowledge these deficiencies and seek to rectify them by establishing clearer lines of accountability and independent, expert scrutiny."

The Committee on Radioactive Waste Management recommended the establishment of a body to independently oversee the policy implementation process, but the Government has only committed to a reconstituted CoRWM as an advisory body. Members of CoRWM have expressed "substantial misgivings" about these plans. (2) Now the House of Lords Science and Technology Committee has also been severely critical of the failure to set up an independent oversight body. The Lords said the consultation on nuclear waste management planned for the summer should be postponed until an independent oversight body had been established. (3)

The Lords also complained that the Government were moving ahead to site selection with “unseemly haste”. In an earlier report on radioactive waste management in 1999, the committee called for "steady and measured" progress on an issue which would have knock-on effects for millennia to come. But today, its report said: "Instead, we have had years of procrastination followed by what now appears to be unseemly haste. This is not the way to inspire public confidence."


Sunday Herald 3rd June 2007
http://www.sundayherald.com/news/heraldnews/display.var.1443935.0.concern_over_incoherent_nuclear_waste_disposal_plan.php

RobEdwards.com 3rd June 2007
With added links, an extra quote, and a copy of the report available to download:
http://www.robedwards.com/2007/06/concern_over_in.html


(3) BBC 2nd June 2007 http://news.bbc.co.uk/1/hi/uk_politics/6715137.stm

10. Oldbury Fire

A generator at the Oldbury Magnox station in South Gloucestershire overheated and caught fire on 30th May. No-one was injured in the blaze which was on the non-nuclear side of the plant, but the reactor has been shut for the foreseeable future. The reactor had only just re-opened after a two-year shutdown, and it is scheduled to close down permanently at the end of 2008.

Western Daily Press 31st May 2007
http://www.westerndailypress.co.uk/displayNode.jsp?nodeId=146238&command=displayContent&sourceNode=146064&contentPK=17451241&folderPk=100268&pNodeId=145795

11. Russian disaster in waiting?

20,000 spent submarine fuel rods are contained in three tanks at the Andreeva Bay storage site in Russia. Cracks in the concrete walls of the dilapidated tanks have allowed seawater and rainwater to seep in and corrode the lethal contents. The situation is so bad Russia's nuclear agency has
warned there could be an "uncontrolled chain reaction", according to the Norwegian environmental group, Bellona. Experts say that could set off an explosion scattering radioactive material across northern Europe, reaching even as far as Britain, in an environmental catastrophe worse than the Chernobyl disaster. (1)

A spokesman for the Russian nuclear agency, known as Rosatom, denied there was any threat to the public from the storage tanks. But Dr Large, who helped salvage nuclear material from the Kursk, the Russian submarine that sank in the Barents Sea in 2000, said the state of the Andreeva Bay site was symptomatic of Russia's management of its nuclear legacy.

(1) Scotsman 2nd June 2007 http://news.scotsman.com/scitech.cfm?id=862932007
Bellona website 1st June 2007 http://www.bellona.org/articles/Andreyeva_Norway
Independent on Sunday 10th June 2007 http://news.independent.co.uk/europe/article2640425.ece

12. Support for new nuclear reactors falls

According to MORI support for building new nuclear power stations to replace existing reactors has fallen from 41% in 2005 to 35%. Opposition has remained stable at 29%

FT 7th June 2007 http://www.ft.com/cms/s/e1c5f2fc-1494-11dc-88cb-000b5df10621.html

13. Sellafield Waste Problems

The Nuclear Installations Inspectorate (NII) has outlined growing problems at Sellafield’s high-level liquid waste plants. The latest report by the NII to the West Cumbria Sites Stakeholder Group describes a catalogue of equipment failures and concerns over the cooling coils needed to keep highly radioactive liquids cooled. The NII’s previous report noted “strategically significant concerns” about the integrity of evaporators, which concentrate the highly dangerous liquid waste, the highly radioactive storage tanks (HASTs) and staffing levels in that area. The NII has continued to press for improvements.

Now, three months later the NII reports that there are still significant uncertainties about the remaining life of the evaporators, and it continues to press BNG to develop new evaporator capacity. The inspectors have also voiced concerns about the cooling coils needed to prevent the tanks of highly radioactive liquor overheating. A number of cooling coils have failed. A failure causes a breakthrough of radioactivity into the cooling water circuits which can lead to a radioactive release if not properly managed. The HAST cooling coil failure rates and the location of recent failed coils has led to uncertainties over the ability of the newer HASTs tanks to comply with the NII’s requirements for reducing the volume of highly radioactive liquid waste. The inspectors also said BNG is not keeping staffing levels at a high enough level. (1)

Meanwhile, radiation monitoring specialists at Sellafield are puzzled by the discovery of pebbles on local beaches that have absorbed radioactivity. The handful of cases of ‘hot pebbles’ came to
light after a new scanning and monitoring machine made extensive checks across beaches at Sellafield, Seascale and St Bees. (2)

(1) Whitehaven News 7th June 2007
HSE Quarterly Report to the West Cumbria Sites Stakeholder Group, January 2007 to March 2007
(2) Carlisle News and Star 8th June 2007