

Submission on the  
Draft Nuclear Sites  
and  
Radioactive Substances Bill (2003)

**Greenpeace UK**  
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## **Summary**

Greenpeace welcomes the opportunity to make a submission on the draft Nuclear Sites and Radioactive Substances Bill (2003), (which we refer to as the draft Bill). Greenpeace has major concerns with the Bill as currently worded. In particular, Greenpeace is concerned that the draft Bill has been transformed from a measure rooted in environmental and health concerns and aimed at dealing with legacy waste to a measure which makes possible the transfer of the costs of nuclear liabilities, past or future, from the nuclear industry, publicly owned or private, to the state. The transfer of the liability inherent in nuclear power from the industry to the taxpayer, coupled with the proposed power of the NDA itself to run power stations and create more waste undermines the original purpose of the legislation, favours the production of nuclear power and undermines the public confidence in legislation whose primary aim should be the protection of health and the environment, in the context of ending the UK's nuclear industry.

## **Key points/concerns**

### **1.0 BE Bailout**

- 1.1 The NDA Bill has expanded the remit originally proposed for the Authority from one that deals with legacy waste from publicly owned industry to one that can take on the liabilities, past and future, of the failed private nuclear company British Energy and any other private or public company. This does not square with the claim in the White Paper that: 'the focus here is squarely on the nuclear legacy'.
- 1.2 The NDA has become the conduit through which the decommissioning aspects of the stricken BE's proposed restructuring package are to be carried out. [Explanatory Notes para 30][Clause [3](3)]
- 1.3 In its Draft Decision Document on Aid to British Energy<sup>1</sup>, the European Commission describes the measures the UK Government is proposing to implement with regard to the funding of BE's liabilities As follows:

*"Measure A which relates to the funding of nuclear liabilities constitutes the central point of BE's restructuring plan. Its financing will mostly be at the costs of the State. Besides the costs related to some nuclear liabilities are not limited to a reasonable time span, but can arise until 2086. The UK government argues that nuclear liabilities are historically incurred costs which do not have any impact on the ongoing costs of the company. There would, therefore, be no ongoing subsidy to BE. The Commission does not subscribe to that view. If the origin of the nuclear liabilities occurred in the past (spending of fuel and construction of nuclear plants), the costs will have to be carried out in the future. One of the main reason for BE's difficulties was its inability to meet the high fixed costs attached to nuclear generation. Measure A will certainly help the return of viability of BE but this measure can not be considered as internal and limited in its duration. In addition, it seems to relieve BE from part of its obligations under the "polluter pays" principle".*

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<sup>1</sup>See [http://www.british-energy.com/cms\\_files/pdf/1059417779.pdf](http://www.british-energy.com/cms_files/pdf/1059417779.pdf)

- 1.4 It is unlikely that the proposed measure will be approved by the European Commission. To include it in this Bill is, at the very least, premature and inappropriate. Clause [3](3) which allows the NDA to take on BE's liabilities should be removed.
- 1.5 Other provisions in the Bill would allow for further aid to British Energy and to other private nuclear companies. Clause 4 clearly anticipates that the NDA can become responsible for decommissioning, clean-up and treatment for the private sector. It can therefore become responsible, if so directed, for any of BE's nuclear liabilities that are not already covered by the restructuring package, including, it would appear, its contracted liabilities under the re-negotiated BNFL contracts.
- 1.6 Clause 4 read with clauses 5,7 and 16 mean there is no requirement to require that a private operator make payment for any of the works, nor that any payment that is made reflects the costs of the works.

## **2.0 New Reactors**

- 2.1 The NDA will also have the power to operate electricity-generating stations under Clause [7](1)(a). Although intended to give the NDA the power to operate plant such as the gas-fired combined heat and power plant at Sellafield, taken together with Clause [3](1)(a), which has no definition of 'pending decommissioning' and [3](1)(d), which gives it the power to operate facilities for the treatment or disposal of radioactive waste, this could also see the NDA building and operating, for example, plutonium-burning reactors.
- 2.2 Clause [7](1)(a) should explicitly exclude the operation of new nuclear stations.
- 2.3 The rump of BNFL must not be 'freed' to concentrate on selling new reactors. If the NDA is to inspire public confidence, the new BNFL must be seen as completely separate from any possible new reactor-building programme in the UK or elsewhere in the world. It should develop instead its clean-up and decommissioning business, and make the most of its Westinghouse division's expertise in the storage of waste. The Westinghouse reactor division should preferably be closed down, or at the very least sold off.

## **3.0 Annual Reviews of operating nuclear facilities**

- 3.1 There is no provision in the Bill for the annual reporting on the rationale for keeping operating nuclear facilities open, as promised in the White Paper<sup>2</sup> [para 5.27]. This should not be left to a subsidiary non-binding document.
- 3.2 Clause [3](1)(a) is intended to allow the NDA to operate BNFL's ageing, loss-making Magnox reactors. Clause [3](1)(d) gives the NDA the power to continue operating the two reprocessing plants at Sellafield, as well as the Sellafield MOX Plant.
- 3.3 The commitment to annual reviews of the operation of Magnox reactors, Magnox reprocessing, THORP and SMP should be made explicit in the Bill.

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<sup>2</sup> [http://www.dti.gov.uk/energy/nuclear/announce\\_pubs/conspubs/nuclear\\_legacy/whitepaper.pdf](http://www.dti.gov.uk/energy/nuclear/announce_pubs/conspubs/nuclear_legacy/whitepaper.pdf)

- 3.4 There should be no subsidies from the NDA to support BNFL's existing operations. There must be no incentive for BNFL to sign new contracts for reprocessing or MOX fuel fabrication.
- 3.5 Any review of oxide reprocessing is likely to decide that storage of spent fuel is a much cheaper and environmentally friendly option. The NDA should initiate discussions with BNFL's existing reprocessing customers, including British Energy, to evaluate the potential for renegotiating the contracts with a view to halting reprocessing. This should not be left to BNFL.
- 3.6 Shortly after the NDA takes over responsibility for the THORP reprocessing plant, it is extremely likely that BE will be its sole remaining customer<sup>3</sup>. In its Draft Decision Document on Aid to British Energy, the European Commission describes the new contract arrangements between BE and BNFL (see para 42-59). The Commission says that these contracts contain "State aid elements" (para 121) which were put in place before Commission authorisation, and are therefore unlawful. The Commission concludes that these measures not only concern historical costs but also the costs of future operations. It "therefore doubts that the company can be considered to face the market with its own forces while it benefits from this measure". Arrangements for BE's spent fuel management could be returned to a market basis by opting for storage rather than reprocessing.

#### **4.0 No boundary around the amount of waste created.**

4.1. Taken together, these first three points mean that the NDA now appears to be designed to allow for continued nuclear power generation, and increased waste creation from the operation of key BNFL facilities e.g. SMP and THORP. This means there is no boundary around the amount of waste that will have to be dealt with by the NDA, and no final bill for the taxpayers who face ever escalating costs if the draft Bill goes ahead as proposed.

#### **5.0 Lack of Environmental Principles.**

5.1 The White Paper claimed that the new arrangements (proposed through the NDA) 'makes it clear that the Government's priority is to ensure that clean up is carried out safely, securely, cost effectively and in ways which protect the environment for the benefit of current and future generations.' However, the Bill miserably fails on this point too. It does not have a clearly defined objective and also lacks overarching environmental and human health protection principles.

5.2 Clause [6](1) confers 5 duties on the NDA, 4 of which are in uncompromising terms. But Clause [6](1)(a) only requires the NDA to have regard to the need to safeguard the environment. The NDA's strategy development would be based only on 'meeting regulatory requirements', and not on a clearly defined set of environmental principles, enshrined in legislation. This lack of environmental principles could lead to inappropriate methods of

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<sup>3</sup> According to Nuclear Fuel, Volume 28, Issue 18— September 1, 2003, THORP's baseload operations will finish around 2006/7. German post-baseload contracts have fallen to around 302 tonnes.

nuclear waste management being promoted, decommissioning being used as an excuse for increased discharges of radioactivity to the environment, a failure to prioritise the most hazardous waste, and unnecessary transfers of nuclear waste from one site to another<sup>4</sup>.

5.3 All the NDA's activities should give primacy to *environmental and sustainability concerns*, rather than commercial or economic ones. The Bill should give the NDA an overarching objective "to protect the health and safety of people, and to protect the environment, from the harmful effects of radiation during the decommissioning and clean up of those nuclear sites, which come under the NDA's control and oversight."<sup>5</sup>

5.4 This objective should be informed by overarching principles which commit the NDA to:

- always seek to apply international best practice in radiation protection;
- avoid or minimise nuclear waste creation during its operations;
- give primacy to environmental and sustainability principles e.g. concentration and containment of waste rather than dilution and dispersal during its operations.

## **6.0 Consultation.**

6.1 Whilst the Bill requires the NDA to consult 'local stakeholders', it only offers 'no constraint' on consulting other stakeholder groups and the public at large. The NDA Bill does not contain legislative requirements to consult national NGOs or indeed important third parties e.g. other countries that might be contaminated by discharges resulting from clean up operations. [Explanatory Notes para 53].

6.2 Consulting other stakeholder groups and the public should be made a statutory requirement in the Bill.

## **7.0 Conclusions**

The NDA should be redrawn with an overarching objective and clear set of underlining Environmental and Health Principles. The way the Bill is currently drafted means there is a likelihood that the new authority will:-

- (a) continue to make the problem worse by generating more nuclear waste;
- (b) support the privatised nuclear sector by taking responsibility for new waste and liabilities;
- (c) fail to meet its own openness and transparency objectives by not consulting ALL stakeholders;
- (d) become a victim of policy made 'on the hoof' by the regulators and industry; and
- (e) fail therefore to meet the DTI's declared objective of gaining public confidence.

By permitting the NDA to deal only with legacy wastes, giving it a clearly defined objective, which is underscored with best environmental and organisational principles, including duties to avoid or minimise waste creation and a statutory duty to consult all stakeholders and the public at large, the

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<sup>4</sup> See for example RWMAC (March 2003) Advice to Ministers on Management of Low Activity Solid Radioactive Wastes within the United Kingdom, ( [www.defra.gov.uk/rwmac/press/p030324.htm](http://www.defra.gov.uk/rwmac/press/p030324.htm) ) paras 6.38, 6.13 and A3.21

<sup>5</sup> For an idea of how this can work in legislation see the Australian Radiation Protection and Nuclear Safety Agency Act 1998. Although not perfect it is led by an overarching object. [http://www.austlii.edu.au/au/legis/cth/consol\\_act/toc-A.html](http://www.austlii.edu.au/au/legis/cth/consol_act/toc-A.html)

NDA can gain wide public confidence, and begin the long job of cleaning up the nuclear mess the government and nuclear industry has created in the UK.

**APPENDIX**  
**PROPOSAL FOR AN ENVIRONMENTALLY SUSTAINABLE NUCLEAR**  
**DECOMMISSIONING AUTHORITY.**

## **Introduction**

Unfortunately, the NDA, as currently proposed, appears to suffer from ‘the wrong-problem problem’. Instead of asking how the UK can establish an institution which will ‘effectively tackle the problems which arise from the nuclear waste we have already created in a way which sets new, world-leading, environmental and health protection standards?’ it appears to ask “how can we create an institution which will continue the operation of the nuclear industry - as planned - in the face of increasing waste creation, bankruptcy and escalating costs”?

## **Problems with the Bill**

Whilst there were problems with the White Paper, particularly the plan to make the NDA responsible for the continued operation of Magnox reactors, the two Sellafield reprocessing plants and the Sellafield MOX Plant, there was at least some hope that by including a commitment to annually reviewing the rationale for continuing to operate these facilities, that eventually common sense would prevail. The recent speculation about the closure of THORP in 2010 is evidence that there may now be a new willingness to deal with problems caused by wrong decisions made in the past (albeit too slowly).

However, now that the proposed responsibilities of the NDA have been extended to cover waste liabilities (and potentially decommissioning) for the privatised nuclear generator, British Energy, this means that the NDA will be tainted, and that gaining public acceptability will be much more problematic.

## **The No Waste Minimisation Problem**

The draft Bill contains no guidelines directing the NDA to limit the size of the waste mountain produced by existing facilities before they finally close.

The Bill proposes to give the Nuclear Decommissioning Authority powers to operate nuclear power stations, pending their decommissioning, [Clause 3 (1)(a)] without defining “pending decommissioning”. [See Explanatory Notes para 39]. It is difficult to see how Magnox stations, not currently scheduled to close until 2008 and 2010 can be described as ‘pending decommissioning’. With no commitment to waste minimisation the amount of waste produced by Magnox stations will be maximised, and radioactive discharges from Sellafield could double over the next few years if the Magnox closure programme goes according to plan.

The NDA would also have the power to halt the ‘spherically daft’ reprocessing of BE’s spent nuclear fuel in THORP. Ironically this reprocessing is already subsidised by the taxpayer as BNFL was forced to accept a lower priced contract with BE during its financial crisis. Future government-subsidised reprocessing will add more to the state-aid bill for BE’s operations. With no commitment to waste

minimisation the NDA will have only economic incentives to rectify this situation by halting the reprocessing of BE's spent fuel.

### **The No Boundary Problem**

Rather than simply cleaning-up and decommissioning the legacy of an already problematic industry, the NDA will also facilitate the continuation or even expansion of the private nuclear sector, [Clause 3(3)] as part of the Government's controversial bail-out of BE, and assist the Ministry of Defence to continue generating nuclear waste by the production of nuclear weapons and the commissioning of nuclear powered submarines [Clause 4 (2)].

It will also have more general powers to operate electricity generating stations [Clause 7 (1) (a)]. Taken together with the powers specifically intended to cover BE's liabilities, these clauses would not only allow for future private nuclear companies to be bailed out for their waste and decommissioning liabilities, but also give the NDA the power to build and operate, for example, plutonium-burning reactors.

The NDA appears to be being set-up as an organisation with at least the capability, if not the intention, to facilitate the perpetuation of the nuclear industry, whether it be by taking a major role in the bail-out of the bankrupt privatised British Energy, or by freeing government-owned British Nuclear Fuels Ltd of its past liabilities in order to allow it to continue "promoting the Westinghouse AP1000 reactor design worldwide [and] replacing current [UK] nuclear generating capacity"<sup>6</sup>.

In summary, there is no boundary around the amount of waste to be produced in future, nor around the amount of taxpayer funding.

### **The Dilute and Disperse Problem**

If the NDA's strategy development is simply based on 'meeting regulatory requirements', past experience tells us that regulators and government will fail to question the high marine discharges from Sellafield and other sites attributed to decommissioning and clean up. The UK's Radioactive Discharge Strategy allows for around 30TBq of liquid discharges (excluding tritium) from Sellafield after both reprocessing plants have closed<sup>7</sup>. [Compared to current annual discharges of around 150TBq] In fact, the former Energy Minister, Brian Wilson, was reported as saying that: -

*"...the decommissioning of parts of the Sellafield complex would involve increases in discharges..."*<sup>8</sup>

There is nothing inevitable about discharges of radioactivity to the marine environment as a result of decommissioning, and decommissioning should not be used as a convenient excuse to increase discharges. Brian Wilson's statement, for instance is stretching the definition of decommissioning. Discharges from Sellafield are currently rising because of the lengthy timetable, which BNFL has decided to implement for its Magnox reactor closure programme.

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<sup>6</sup> [http://www.bnfl.com/website.nsf/images/annual\\_report\\_2003\\_commentary/\\$file/Commentary.pdf](http://www.bnfl.com/website.nsf/images/annual_report_2003_commentary/$file/Commentary.pdf)

<sup>7</sup> DEFRA (July 2002) UK Strategy for Radioactive Discharges. Figure 7. See also RWMAC (Nov 2000) Advice to Ministers on the Radioactive Waste Implications of Reprocessing. Annex 7.

<sup>8</sup> Cullen, P. Irish debate on Sellafield 'dishonest' Irish Times 29<sup>th</sup> May 2003.



The UKAEA has asked SEPA for permission to carry out a huge one-off increase in its discharges from Dounreay. The discharge permission it is seeking will be up to 10-times the total annual discharges into the Pentland Firth in recent years - and would be in addition to the regular authorised discharges into the sea. The one-off discharge is designed to allow the UKAEA to empty a tank containing medium-level waste by transferring some of the liquid to a new tank. The NII and SEPA have expressed concerns over the structural integrity of the tank. Unfortunately the new tank is not big enough to hold all the waste from the original tank, and still leave room for emergencies, so UKAEA wants to pump the rest into the sea.

The proposed one-off discharge will contain 18.9GBq of alpha and 490GBq of beta. This will be in addition to the routine annual discharge from the plant which amounted to 12GBq alpha in 1998 (1.7GBq in 1999) and 584 GBq beta in 1998 (297GBq in 1999). The proposed one-off alpha discharge, therefore, is over 10-times the total discharged in all of 1999<sup>9</sup>.

This illustrates the need to make sure that decommissioning and dealing with so-called 'historic waste' are not used as excuses to increase discharges from UK nuclear sites. Decommissioning needs to be planned to fit in with the overall objective of "progressive and substantial reductions of discharges ... of radioactive substances with the ultimate aim of [achieving] concentrations in the environment ... close to zero ... by 2020"<sup>10</sup>.

Without a commitment to concentrate and contain nuclear waste as far as possible, rather than diluting and dispersing it throughout the environment, the NDA is likely follow through on the industry's existing plans.

### **The Unnecessary Transport Problem**

Without any significant public discussion, the UKAEA has simply decided that it should prioritise site clearance, rather than setting a series of overriding environmental principles as the basis for the Dounreay Site Restoration Plan. Rather than aim, for example, to develop Dounreay as a centre of excellence in decommissioning and the above-ground, dry storage of nuclear waste in a retrievable and monitorable condition, the UKAEA, is promoting plans to transfer its problems to Sellafield.

*"An essential element of the Dounreay Site Restoration Plan (DSRP) is the removal of significant quantities of material and wastes to allow storage facilities to be decommissioned and the inventory of nuclear material to be reduced"<sup>11</sup>.*

Possible waste transfers to Sellafield mentioned in the Dounreay Site Restoration Plan include:-

*(1) Dounreay Fast Reactor (DFR) Breeder Fuel elements<sup>12</sup>.*

There are around 44 tonnes of this fuel on the Dounreay site. Approximately 32 tonnes have yet to be removed from the reactor vessel, and the remaining 12 tonnes are in the form of cut fuel elements, fuel pieces and debris. The UKAEA's favoured option involves transportation of the fuel to Sellafield for

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<sup>9</sup> "Orkney Concern over Leaky Tank of Waste" Caithness Courier 4<sup>th</sup> May 2002 & Dounreay Local Liaison Committee Meeting 21<sup>st</sup> May 2002.

<sup>10</sup> OSPAR Convention for the Protection of the Marine Environment of the NorthEast Atlantic, Sintra Statement, July 1998.

<sup>11</sup> UKAEA Press Release. Transport Essential to Decommission Dounreay. 8th November 2001 Ref: 2001/42

<sup>12</sup> UKAEA (Oct 2000) "The Dounreay Site Restoration Plan" Volume 6 para 5.6

reprocessing in the Magnox Reprocessing Plant - with attendant discharges into the environment. This route was utilised in the 1960s for a quantity of breeder fuel.

An alternative option would involve passivating the metallic fuel for encapsulation as waste on site (along with storage on site). However, UKAEA has already started discussions with BNFL over the treatment and transport of the breeder fuel and a preliminary contract has been signed under which BNFL is carrying out technical reviews of processing and transport<sup>13</sup>.

This also smells of collusion between the two organisations which are expected to run the clean up operations for several years post the establishment of the NDA and does not bode well for the future of legacy waste management at Britain's largest nuclear facilities.

### *(2) Prototype Fast Reactor (PFR) Fuels,*

On 18 July 2001, the then Energy Minister, Brian Wilson, announced there would be no further reprocessing at Dounreay, but this does not mean the option of reprocessing the PFR fuel at the THORP plant at Sellafield has been ruled out. It will apparently be some time before firm proposals emerge for the management of PFR fuel. Mr Wilson stated that:

*"No clear preference emerged from [the] UKAEA's assessment of the options, or the public consultation".*

This seems odd, given the overwhelming opposition in Scotland and the neighbouring Nordic countries to reprocessing in favour of storage. All the local authorities in the Highlands and Islands as well as the Scottish Nuclear Free Local Authorities, environmental groups and the Liberal and Scottish National parties all favoured long-term storage. Nordic countries also rejected reprocessing in favour of storage. This is another example of environmental best practice not being followed, which is why there are concerns if the NDA follows through on the UKAEA's plans.

### *(3) Transporting Dounreay's Low level waste (LLW) to Drigg.*

The UKAEA wants permission to start transporting thousands of cubic metres of low-level radioactive waste from Dounreay to the nuclear dump at Drigg, near Sellafield. This means either a trainload every month or a lorry-load every fortnight for the next 5- 10 years<sup>14</sup>. The proposals have already been sent to statutory consultees for consideration prior to a formal public consultation, expected to take place later this summer.

It is possible the same 'disposal route' may be proposed for the considerable quantities of LLW that will be produced at Dounreay mainly as a result of decommissioning activities. Disposal of new arisings at Dounreay has now stopped because the original disposal trenches are nearly full. Consequently significant quantities of LLW are currently in interim storage. UKAEA is undertaking a Best Practicable Environmental Option Study into long-term management to establish a way forward on this matter<sup>15</sup>. The Radioactive Waste Management Advisory Committee has called for

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<sup>13</sup> HSE (2001) Safety Audit of Dounreay 1998: Final Report 2001 Recommendation 50.

<sup>14</sup> UKAEA Press Release. Transport Essential to Decommission Dounreay. 8th November 2001 Ref: 2001/42

<sup>15</sup> HSE (2001) Safety Audit of Dounreay 1998: Final Report 2001 90-92

consideration to be given to the idea of an independent third party being asked to carry out the BPEO for dealing with this waste<sup>16</sup>.

In relation to the above, the RWMAC also noted a lack of clarity in the DSRP concerning the future of the existing LLW facilities at Dounreay.

*“It is not clear at present, however, whether a post-closure safety case can be made for the facility ... if the retention of waste in the pits is not sustainable, this will have implications for the provision of future facilities at Dounreay or elsewhere”<sup>17</sup>.*

In other words, at some point in the future, a decision may be taken to empty the pits and transfer the historic arisings of LLW elsewhere.

The proposal to transport the current LLW to Drigg is being supported by the Nuclear Regulators, with the encouragement of the UKAEA, whose view is that, because a disposal route ‘exists’ it should be used in preference to storing the waste above ground in monitorable and retrievable stores at Dounreay.

RWMAC says the NDA should undertake an urgent assessment of the country's low-level waste disposal requirements<sup>18</sup>. The NII and SEPA proposal "raises some potentially fundamental issues of longer-term policy...[and] there is a danger of national policy effectively being pre-empted by specific regulatory decisions."<sup>19</sup> It also "gives the impression of policy being made 'on the hoof' by the regulators"<sup>20</sup>. The RWMAC report adds a further warning: "If this is allowed, the possible future implications for ILW and high-level waste must also be considered."

Indeed, Dounreay serves as an example of how site-by-site ‘needs’, and the ‘needs’ of individual organisations, are being dealt with in an ad hoc manner, but this does not necessarily mean the best environmental or radiation protection measures are being employed.

### **Lack of Underlining Environmental and Health Principles**

A recent NuSAC/RWMAC report<sup>21</sup> concluded that the nuclear safety and environmental protection regulators are working to essentially different sets of basic principles and standards. The Committees recommended that the systems of nuclear safety and environmental protection regulation should be reviewed, at a fundamental level. Stating clearly the environmental and health and safety principles underlining the work of the NDA could be the start of this fundamental review.

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<sup>16</sup> RWMAC (September 2001) Advice to Ministers on the Restoration of the UKAEA Dounreay Nuclear Site.

<sup>17</sup> Ibid para 6.34

<sup>18</sup> RWMAC (March 2003) Advice to Ministers on Management of Low Activity Solid Radioactive Wastes within the United Kingdom, para 6.38 ( [www.defra.gov.uk/rwmac/press/p030324.htm](http://www.defra.gov.uk/rwmac/press/p030324.htm) )

<sup>19</sup> Ibid para 6.13

<sup>20</sup> Ibid para A3.21

<sup>21</sup> HSE (March 2003) Review of the regulation of nuclear safety and the management of radioactive materials and radioactive waste within the United Kingdom (‘The NuSAC/RWMAC joint regulatory review’) Structures and principles of the regulation of the nuclear licensed sites.

## **Whose policy prevails?**

In Clause 6 (2) (a) it is noted that the matters to which the NDA must have regard are: ‘relevant government policy’. Yet later the Bill (Clause 8, (4)(b) states that the strategy must set out the NDA’s policy as to the means by which it intends [its] objectives to be achieved.’

The Bill does not make clear whether it is the policy of the NDA, or the current Government’s that will prevail. Thus the idea that the NDA will be an agency at arm’s length from the Government has to be questioned – particularly because of the influence the UKAEA and BNFL have in government policy circles on nuclear matters.

## **The Nuclear Phase-Out Authority**

The conclusion from the above is that there is a real danger that the NDA will simply perpetuate the problems it is supposed to be designed to eliminate, and has indeed the potential to provide an incentive for nuclear new build in the private sector, with the option of future public subsidies for decommissioning and waste management not ruled out. Supposed tough talking on value for money and cost effectiveness – leading to real competition – rings hollows given that both the UKAEA and BNFL have abused the public purse and collaborated to avoid best practice ever since their inception. There is nothing to indicate the NDA will have the power or the will to change that situation.

There is one simple way to help solve these problems, and that is to give the NDA an overriding environmental objective with a set of environmental principles enshrined in the legislation.

The NDA’s remit should be formulated along the lines suggested by the PIU’s new energy policy ie. where decisions about waste management involve trade offs with other objectives, environmental and sustainability concerns must take precedence. All the NDA’s activities should be directed by *environmental and sustainability concerns*, rather than commercial or economic ones. The NDA should operate solely in the public interest - in ensuring a sustainable long-term strategy for waste management. It should not subsidise or in any other way support the nuclear power industry.

In order to create an organisation that can become a world-leader in decommissioning and nuclear clean up, the Nuclear Sites and Radioactive Substances Bill needs to have ingrained in it a clear objective and a set of environmental principles to drive it. Thus the draft Bill should read:-

## **Proposed objective**

The object of this Act is to protect the health and safety of people, and to protect the environment, from the harmful effects of radiation during the decommissioning and clean up of those nuclear sites, which come under the NDA’s control and oversight.<sup>22</sup>

*This objective will be informed by the following overarching principles.*

The NDA will undertake to:

- (1) always seek to apply international best practice in radiation protection;

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<sup>22</sup> For an idea of how this can work in legislation see the Australian Radiation Protection and Nuclear Safety Agency Act 1998. Although not perfect it is led by an overarching object. [http://www.austlii.edu.au/au/legis/cth/consol\\_act/toc-A.html](http://www.austlii.edu.au/au/legis/cth/consol_act/toc-A.html)

- (2) avoid or minimise nuclear waste creation during its operations;
- (3) give primacy to environmental and sustainability principles e.g. concentration and containment of waste rather than dilution and dispersal during its operations;
- (4) there should be no unnecessary transports of waste and

It applying its functions the NDA will:

1. work in an open and transparent way;
2. accept regulatory recognition and allowance for NGOs and Local Government stakeholders on its main advisory committees; and
3. not provide subsidies to support existing operations and waste creation but only deal with legacy wastes.

To give fuller examples of this: -

- Firstly the NDA should stop creating more waste. Reprocessing, which magnifies the problems caused by the production of spent nuclear waste fuel should be stopped.
- Nuclear Electricity generation, which produces the spent fuel, needs to be phased out as quickly as possible.
- The hazards posed by existing wastes should be minimised. Waste should, as far as possible, be concentrated and contained, rather than diluted and dispersed into the environment. Dumping or discharging nuclear wastes into the sea, rivers or groundwater releases nuclear pollution on to future generations. It is our responsibility to avoid such pollution as far as possible and to give future generations the option to avoid it too.
- If future generations are truly to have a choice about how the UK's nuclear legacy is managed, nuclear waste needs to be in stores, above ground where it can be constantly monitored and retrieved and re-packaged if necessary. Options such as placing nuclear wastes below ground, burying it in trenches, incinerating it, or discharging it into the marine environment, all cut off options for future generations and leave a legacy of radioactive contamination of their environment.
- For the foreseeable future, the current, best available, technique for containment of existing nuclear waste is dry, above-ground managed, monitored, retrievable storage.
- Unnecessary transports should be avoided. It is best to store them on the sites where they have been produced. Waste should as far as possible given institutional changes, remain the responsibility of the waste producer.

## **Transparency**

The NDA's apparent commitment to transparency is to be welcomed. All decisions about the future direction and development of the NDA should be made openly and transparently. However, it will need a radical transparency policy, which allows for complete transparency in the accounts, public access to information and influence on the future programme. There is no excuse for any sort of commercial confidentiality in the public sector or private sector interests supported by the public sector e.g. BE and

its liabilities. This must include complete transparency for all current operations at Sellafield and the Magnox sites.

In this context it is worrying that, whilst the NDA has a duty to consult local stakeholders, there is only “no constraint” on consultation with other stakeholder groups or the public [Explanatory Notes para 53]. There is no statutory document to ensure the NDA has a duty to consult with NGOs. Commitments given by officials on this have not been followed through in the wording of the draft Bill.

There are also concerns that environmental principles (such as there are) will not filter down through the many layers of organisations that will be involved in undertaking the clean up and decommissioning – that includes from the DTI down to on-site sub-contractors. In addition, public confidence could be undermined through increased competition leading to a wider use of commercial in confidence labeling being used on strategies and plans which should be in the public domain as they have environmental and health implications. There are concerns that too many of the organisations involved come under the DTI – these include the NDA, BNFL, UKAEA, the Office of Civil Nuclear Security and (to a lesser extent) the HSE.

## Conclusions

It is, difficult to disagree with the rhetoric in the documents accompanying the draft Bill about the need for “establishing the credibility of the NDA as a body which can deliver and ... make a difference”<sup>23</sup>. But the failure to rule out the promotion or facilitation of nuclear expansion from the NDA’s role and the failure to include an overarching objective for the NDA in the draft Bill, along with environmental principles, to steer the NDA’s operations will make achieving the desired level of public confidence difficult, if not impossible.

Currently there is very little about how the NDA should carry out its functions in the draft Bill, with regard to the environment, beyond having regard to ‘the need to safeguard the environment’ and ‘relevant government policy’. [Clause 6 (1)(a)(b)]. In the Draft Memorandum of Understanding between the NDA and Nuclear Regulators there are simply references to ‘protecting the environment’ (Cover note para 1) and complying with regulatory requirements (para 2.1).

This all implies that the NDA could:-

- (a) Continue to generate nuclear waste in nuclear facilities, making current problems worse;
- (b) Build new nuclear generating stations if deemed necessary to carry out its ‘functions’;
- (c) Facilitate the continuation of nuclear generation in the private sector and the construction of new stations;
- (d) Use decommissioning as an excuse for increasing radioactive discharges and fail to improve the environment, as the UK is committed to under agreements made through the OSPAR Treaty processes, which require progressive and substantial reductions in discharges of radioactivity to the marine environment.

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<sup>23</sup> “Developing a Framework for Stakeholder Engagement and Transparency for the Nuclear Decommissioning Authority”, para 2.

- (e) Continue to generate plutonium which is a major security concern, and likely to be declared a waste.
- (f) Fail to meet its own openness and transparency objectives by not consulting ALL stakeholders;
- (g) Become a victim of policy made 'on the hoof' by the regulators, and
- (h) Fail to meet its own objective of gaining public confidence.

If the NDA's strategy development is simply based on 'meeting regulatory requirements', and is not based on a clear objective and an equally clearly defined set of principles, enshrined in legislation, there is a danger that policy will be developed in a similar way to that at Dounreay – in other words 'on the hoof' with national policy effectively being pre-empted by specific regulatory/site decisions. It will fail to deal with 'fundamental issues of longer-term policy'.

By permitting the NDA to deal only with legacy wastes, giving it a clearly defined objective, which is underscored with best environmental and organisational principles, including duties to avoid or minimise waste creation and a statutory duty to consult all stakeholders and the public at large, the NDA can gain wide public confidence, and begin the long job of cleaning up the nuclear mess the government and nuclear industry has created in the UK.

### **Annex: The Australian Radiation Protection and Nuclear Safety Act (1998)**

The Australian Radiation Protection and Nuclear Safety Act (1998) (ARPANS Act) sets an object for the Agency, as follows ([http://bar.austlii.edu.au/au/legis/cth/consol\\_act/arpansa1998487/s3.html](http://bar.austlii.edu.au/au/legis/cth/consol_act/arpansa1998487/s3.html)).

**Object of Act** The object of this Act is to protect the health and safety of people, and to protect the environment, from the harmful effects of radiation. [Section 3]

There is no reason why the legislation for the NDA should not contain a similar overarching objective.

**Threat of new build:** Concerns have been raised by Greenpeace, FoE, NFLA over the potential for the Bill, as currently worded, to allow for new build. As the Australian legislation shows, specific wording banning the establishment of certain installations can be contained in legislation. In this case the Nuclear Installations and Radioactive Substances Act would contain legislation prohibiting the NDA from building any new reactors or reprocessing plants.

ARPANSA Section 10 says:- **Prohibition on certain nuclear installations**

(1)

Nothing in this Act is to be taken to authorise the construction or operation of any of the following nuclear installations:

- (a) a nuclear fuel fabrication plant;
- (b) a nuclear power plant;
- (c) an enrichment plant;
- (d) a reprocessing facility.

(2) The CEO must not issue a licence under section 32 in respect of any of the facilities mentioned in subsection (1).

**Environmental Principles:** The ARPANS Act confers on the CEO/Board a duty to take into account international best practice. This is significantly different from the NDA proposal which only requires it to meet regulatory requirements.

**Section 32: Issue of facility licence**

- (1) The CEO may issue a licence to a controlled person that authorises persons to do some or all of the things referred to in subsection 30(1).
- (2) A licence issued to the Commonwealth may be issued in the name of a Department of State.
- (3) **In deciding whether to issue a licence under subsection (1), the CEO must take into account the matters (if any) specified in the regulations, and must also take into account international best practice in relation to radiation protection and nuclear safety (emphasis added).**

In the ARPANSA Glossary of Terms Used for Regulatory Assessment, international best practice is defined as: Practice that predominantly conforms with guidelines and standards issues by international radiation protection and nuclear safety organisations (such as IAEA, ICRP), and which also draws on standards and contemporary practices of nuclear regulators around the world, which are subjected regularly to peer or other critical review at an international level.

**On stakeholder consultation:** The ARPANS Act also requires the CEO to take into consideration submissions by the public on proposed activities. The paper entitled “Developing a Framework For Stakeholder Engagement and Transparency for the Nuclear Decommissioning Authority” suggests that there is a commitment to consulting all types of stakeholders. However, whilst the draft Bill, confers on the NDA a duty to consult local stakeholders, it is worrying that there is only “no constraint” on consultation with other stakeholder groups or the public [Explanatory Notes para 53]. There is no statutory document to ensure the NDA has a duty to consult with NGOs. Commitments given by officials on this have not been followed through in the wording of the draft Bill.

**Section 41 Issue of facility licence — matters to be taken into account by CEO**

- (1) The CEO may issue a facility licence to a controlled person.
- (2) In deciding whether to issue the licence, the CEO must take into account the matters (if any) specified in the regulations.
- (3) The matters are:
  - (a) whether the application includes the information asked for by the CEO; and
  - (b) whether the information establishes that the proposed conduct can be carried out without undue risk to the health and safety of people, and to the environment; and
  - (c) whether the applicant has shown that there is a net benefit from carrying out the conduct relating to the controlled facility; and
  - (d) whether the applicant has shown that the magnitude of individual doses, the number of people exposed, and the likelihood that exposure will happen, are as low as reasonably achievable, having regard to economic and social factors; and
  - (e) whether the applicant has shown a capacity for complying with these regulations and the licence conditions that would be imposed under section 35 of the Act; and
  - (f) whether the application has been signed by an office holder of the applicant, or a person authorised by an office holder of the applicant; and



**(g) if the application is for a facility licence for a nuclear installation — the content of any submissions made by members of the public about the application.**

The ARPANS Act gives an example of how the instructions in the draft Bill could be broadened. The ARPANS Act includes specific representation for the public on the Nuclear Safety Committee, an advisory committee to ARPANS. Similarly, the advisory committees of the NDA could have specific provision made for public representation. The Board of the NDA should also have environmental NGO representation as well as a representative of the ‘general public.’

**Section 27 Membership of the Nuclear Safety Committee**

(1) The Nuclear Safety Committee consists of the following members:

- (a) the CEO;
- (b) a person to represent the interests of the general public;
- (c) a representative of the Radiation Health Committee;
- (d) a person to represent the local government or the local administration of an area affected by a matter related to the safety of a controlled facility;
- (e) up to 8 other members.

(2) Each member, other than the CEO, is to be appointed by the CEO by written instrument.

(3) Before appointing a member, the CEO must consult the Council in relation to the appointment.

(4) Before appointing a member, the CEO must consult such consumer groups and such environmental groups as the CEO considers appropriate.

(5) The CEO must not appoint a person as a member unless the CEO is satisfied that the person has expertise in, or knowledge of:

- (a) nuclear safety; or
- (b) other industrial or safety-related regulation; or
- (c) a related area.

(6) The CEO must appoint a member to be the Chair of the Committee.

(7) Each member, including the Chair, holds office on a part-time basis.

