

Scottish Government Higher Activity Radioactive Waste Policy Workshop - Breakout Session Data

Firstly thanks to you all for attending the Scottish Government Higher Activity Radioactive Waste Policy Workshop this week. Elizabeth, myself and the rest of the team appreciate the time and effort that was taken by all of you to make it work and she thanks you all for contributing and providing us with so many points which we will take forward when producing the consultation document.

While the day is fresh in your minds we have collated the points made in each of the groups sessions and you can check to see if we have captured all of the points you or others raised during these sessions. If anything has been missed or you feel requires further explanation please email me with comments.

You can check the 'Groups for HAW' doc to see which group you were in (Group 1, 2, 3 or 4) and there are **two documents** corresponding to the two sessions marked 'waste disposal' and 'near site, near surface'.

If you have comments or additions could have them to me **by no later than Friday 10 July 2009 please.**

Regards,

Neil.

Neil Murchison
Radioactive Waste Team
Waste and Pollution Reduction Division
Environmental Quality Directorate
The Scottish Government
Area 1J North
Victoria Quay
Edinburgh
EH6 6QQ

Tel: 0131-244-0199
Fax: 0131-244-0245

**Scottish Government's higher-activity radioactive waste policy workshop
24 June 2009**

Group 1A – Waste disposal 10:20 – 11:20

QUESTIONS ON THE DAY

Should the policy be flexible, risk informed, cost effective and affordable, whilst taking account of health, safety, environment and security requirements?

- Environmental principles should be at the top
- Should have public support reflected in document
- Who is the target audience
- Spent fuel – include in waste – consultation document
- Document should be clear – upfront with regard to content – diagram would assist
- What is the policy trying to achieve

Have we explained the waste problem clearly?

- Explain what waste is in Scotland
- Clarity of what's in – what's not
- Rosyth site waste should be covered by policy – clarification will be required
- Clarity of waste is in Scotland or not

Definitions

- Explanation's should be at target 8-10 year old level
- Paper 3a Paragraph 2.02 requires further clarification
- All waste needs to be defined
- Small volume users – explain why excluded
- References to England and Wales in consultation document to clarify differences

Options:

Storage, storage becoming disposal and disposal

- Need explanation as to why the three have been chosen
- Care needed with regard to storage becoming disposal. No back door method
- Design implications for storage becoming disposal
- Careful definitions needed for all three options

Anything missing from the outline framework?

- Chapter 2 should cover all wastes and policy
- References to new build in Scotland – clarify position
- Block new build storage facilities

QUESTIONS FROM PAPERS

Did not reach this point

Scottish Government's higher-activity radioactive waste policy workshop

24 June 2009

Group 2A – Waste disposal 11:25 – 12:25

QUESTIONS ON THE DAY

Should the policy be flexible, risk informed, cost effective and affordable, whilst taking account of health, safety, environment and security requirements?

- Baseline scale of storage facilities
- Need to inspire public confidence (capable of inspiring public confidence)
- Actual figures of current storage in consultation document
- Baseline treatment options need to be included
- Policy should be flexible – why it is flexible
- Balance of information needed – quantities, descriptions, levels
- Storage systems versus storage

Have we explained the waste problem clearly?

- Movement of waste south – is this acceptable?
- Movement of waste abroad for processing. Benefits to Scotland?
- Should we retain and process own waste in Scotland?
- Need to identify where the waste is located (site basis would assist)

Definitions

- Clear definitions required for storage, storage becoming disposal and disposal
- Clear intention to be defined – storage/disposal
- Clear distinction of buildings use
- Reasons need to be given as to what is monitorable waste
- Clarity of waste (what is in, what is out)
- Use of word 'higher' is misleading – (ILW + LLW)
- Less technical descriptions needed
- Examples of conditioning needed
- Graphite picture misleading (man in picture!)

Options

Storage, storage becoming disposal and disposal

- Long term storage – needs clear definition
- Definite storage – needs clear definition
- 100 years – is this too long?
- Indefinite storage – what is meant by this?
- Long-term is this the same as indefinite storage?
- Flexibility on term long-term

Anything missing from the outline framework?

- Needs chapter on siting process – community engagement
- Siting and consultation
- Movement of materials between sites

Questions from papers

Did not reach this point

Do you agree with the proposed definition for near surface from the GRA?

- It needs to be clear in consultation document what the difference between deep geological and near surface is and why we are choosing near surface.
- The use of the term “near surface” is ambiguous.
- Good illustrations of the range of options available is needed.
- There is a need to ensure that people fully understand the definitions.
- Qualify them but do not restrict them.
- Use different site examples (Nationals Archives, CLAB).
- Definition also needs to focus on geology.
- Review definition in light of safety function of geology.

How should visual impact be considered in developing the policy?

- This needs to fit in with the environment with sensitive architecture.
- Local communities need to be consulted with on structure designs.

Do you agree with the proposed definition for near site based on the proximity principle & minimisations of transport?

- Explicitly included proximity principle as in the Waste Framework Directive.
- Capture suitability of existing site for long-term storage.
- Climate change and other issues need to be considered for long-term storage.
- Transport issues need to be considered in the wider context of treatment - Best Practicable Environmental Option (BPEO).
- Transport needs to be considered in a proportionate manner along with all other options.
- Construction transport must be considered.
- Duration of store in a specific location (if there is an intention to move waste ensure we address transport issues in the future).
- Consultation document needs to clarify – not one site, one store.
- Purpose of store – regional/ site specific – must be clarified.
- Agree with proximity principle and minimisation of transport among many (need to get weighting right and give near surface due consideration).
- Question whether “near site” is an appropriate term.

Do you agree that Monitorability is an essential part of radioactive waste management?

- Key distinction between storage and disposal (geological barrier issue in definition).
- Make point that monitoring is a regulatory requirement – may be useful to include requirements in document.
- Need to emphasise active management of site and material
- Do not think this question is needed. Rephrase in terms of storage and disposal.

- Need to capture impact on Letter of Compliance process and how policy might impact future (need to explain Letter of Compliance process could point to joint guidance documents).

Do you think the idea of the 'Reversibility – Retrievability Scale' is a useful one?

- Make clear cost of implications
- Money; and
- Dose to workers.

Scottish Government's higher-activity radioactive waste policy workshop
24 June 2009
Group 2B – Near Surface, Near Site 10:20-11:25

Do you agree with the proposed definition for near surface from the GRA?

- When considering consultation site will capacity be taken into account?
- Ambiguity in the definition – it needs to be clear that Hunterston A type stores are included.
- Definition needs to include storage & disposal
- (1.08)The use of 300 years for potential social change needs to be supported more robustly or clearly explained.

How should visual impact be considered in developing the policy?

- Policy statement lacking in detail of the range of options available.
- Want something in the statement to enhance community input.
- Visual impact over the next several decades needs to be considered (including demolition proposals).
- The policy needs to be flexible enough to accommodate emerging technologies.

Do you agree with the proposed definition for near site based on the proximity principle & minimisations of transport?

- Would a lay person interpret 'near site' the same as the proximity principle would?
- Minimisation of transport is key.
- Minimise movement & volume.
- Application of the waste hierarchy.

Do you agree that Monitorability is an essential part of radioactive waste management?

- Yes.
- Document does not clarify monitoring & and for how long.

Do you think the idea of the 'Reversibility – Retrievability Scale' is a useful one?

- Monitoring needs to be linked with level of risk.
- Need to be clear about transfer of responsibilities & accountability.
- The figure at the end is more helpful than the table.

Do you agree that the regulatory &/or permitting processes are appropriate for storage &/or disposal?

- As of today – yes.
- (2.05) Planning regulation wording unclear.
- Make it clear about joint guidance & how it fits in to waste management (NDA/RWMD Letter of Compliance).
-

Is there anything missing from the outline framework?

- Clarification of what is higher activity waste & why high level waste is not included.
- Clarify the issue of spent fuel.
- No reference to the siting process.

QUESTIONS ON THE DAY

Should the policy be flexible, risk informed, cost effective and affordable, whilst taking account of health, safety, environment and security requirements?

- Should go without saying
- Need to spell out what is meant by flexibility i.e. longer term options need to be spelled out
- Flexibility indicates that policy might be reversed at some time in the future
- Is it flexibility on policy or solutions? Fit for purpose might be useful descriptor

Have we explained the waste problem clearly?

- Needs more explanation of what higher-activity waste is up front as it doesn't become clear until reading further into the document
- Impression that it is high-level waste rather than intermediate level waste – better clarity on definition would help this
- Clearer commentary needed on explanation of the waste problem

Definitions

Storage

- Does this preclude leaving it where it is rather than emplacing it in a different facility? – should it imply that you need to move it?
- No mention of timescales means it is difficult to know when storage becomes disposal
- Intent rather than ability to retrieve might have safety implications for the future
- Issue about intent from a regulatory perspective – what is this facility at any particular stage? – different if it is a store rather than a disposal site. Is disposal site going to be safe for all time?
- Need regulatory clarity for storage and disposal

Disposal

- Policy has to be checked against international definitions
- Confusion over the third bullet point's meaning – “we propose that the time of emplacement is treated as the time of disposal, even if the facility is eventually closed many years later” – is this a regulatory change point?
- Retrieval – does this mean that future generations might have another use for what is currently classified as waste?
- Comment needed on the fact that long-lived metal might become useful in the future?
- Need to mention any scope for decay storage.

Long term

- Potential confusion over 100 years for stores and 300 year decay storage timescales – which do we mean as long term?
- Does planning approval come into store life? Need to check policy against planning requirements – existing consents and future consents for stores.
- If we said “100s of years” it would cover both, subject to planning
- Need clear separation of two definitions
- Is there any point in specifying anything longer than 100 years?
- Should it say “up to 100 years” to allow for other options
- What happens after 100 years?
- Policy is referencing design life of stores, should it reference review points instead?

- Need to address people's views of how they envisage the future
- Reviews should include: safety aspect, planning requirements, management planning, institutional control – needs to be thought through more

Anything missing from outline framework?

- Paragraph 1.04 in paper 3a is a poor statement and something needs to be included along the lines of IAEA definitions.
- What about wastes that have arisen in Scotland in the past and are now in England/Wales – will SG repatriate those wastes and vice versa?
- Is spent fuel specifically excluded? Need to ensure that it is clear.

QUESTIONS FROM PAPERS

Paper 3

Does the framework for the CD provide the information consultees will need?

- Financial consequences of the decisions that are made – will the CD have information on what these are? An impact assessment should be included for any new policy that is the responsibility of government.

Paper 3a

Should the paper cover ILW and LLW for which there is no suitable disposal option?

- Has to be able to provide answers for all waste in Scotland so needs to include LLW that is not covered by other policies

Should the policy cover Rosyth?

- Why define specific sites? – should cover all waste arising in Scotland from any site
- Need for clarity as it is difficult to understand the difference between Rosyth and other defence sites
- Should there be a distinction between defence sites and other sites?
- What are the alternatives if defence sites are not covered by this policy, what policy does cover them?
- What role does SOS Defence have with respect to SG policy? Where does SG vires start and stop?

Paper 3d

Should waste hierarchy be applicable?

- Almost is in CD by default
- Question should be included as it could raise some good points during consultation
- Important to raise issue of minimising creation of secondary waste
- Haven't addressed security issues around the waste - needs a security position in the policy
- Once policy is decided security policy will be overlaid and built in at the outset

Should exports be permitted?

- Good question, but what should the criteria be for allowing export?
- Needs some explanation on who it is proposed to export waste to (? England or outwith UK) and for what purpose – is it for treatment and return of waste residue or for disposal overseas?
- Will waste substitution apply?
- Can't only talk about export, also need to include import.
- Didn't inform enough about transport issues – needs some consideration of transport issues relating to export?
- Does transport need to include going outwith Scotland?

QUESTIONS ON THE DAY

Should the policy be flexible, risk informed, cost effective and affordable, whilst taking account of health, safety, environment and security requirements?

- Yes
- Considered to be slightly patronising to the readers
- Maybe needs some expansion on what is meant by some of the terms e.g. risk informed, cost effective
- Need to consult people on what they understand that the issues listed mean – CD should invite comment on the meaning of the issues

Have we explained the waste problem clearly?

- More information needed on where waste currently is and how we deal with it at present
- Need to know activity level of waste, half-life, owner, mobility and not focus only on volumes
- Need clarity on boundaries of what is included in the policy, specifically spent fuel

Definitions

Storage

- Addition needed to clarify the definition – that there is a clear requirement to continue to monitor and have in place a management regime that supports that during storage
- Intent – should we use “possibility of retrieval” instead?
- Need further definition of each word/phrase e.g. intent, suitable, retrieve to explain it in lay terms

Disposal

- Need to make sure that definition is clear for the lay person
- Need to consider disposal and storage as entirely different permissions as one will be under constant supervision and monitoring and one will not. Need to acknowledge that disposal will eventually allow leakage of waste into the environment although the timescale and route may not entirely be understood.
- Final bullet needs some explanation that this is to allow transition between regulatory regimes.
- Introducing the disposal concept to the policy in near site near surface facilities assumes that this is technically feasible whereas previous CORWM recommendations are that deep geological disposal is the only safe method.
- Would be useful to set out the vision for what the policy might lead to but this should not be a single scenario – need several different informed views of what types of facility could be developed.

Reversibility, retrievability and recoverability

- Could put doubt in people's minds whether decision makers know what they are doing as they might change in the future. Need to explain in what event you would want to reverse it.
- Only relevant to storage, not disposal
- Economic question as anything can be reversed, retrieved or recovered with sufficient funds.
- Only works with institutional control in place similar to the present time – need to recognise this

Long term

- Clarity needed on what is long term storage and what is long lived with respect to half-lives
- CORWM recommendation of 100 years is being used out of context as this was based on storage prior to a geological disposal facility being ready.
- Storage should be until the nuclear industry has ceased to operate and then disposal should occur because there will be no further waste produced and the expertise to care for the waste will be lost.
- Need to separate principle of storage from the physical entity of a store.
- Waste forms need to have integrity to match the life of a waste store.
- May be an underground facility not necessarily a building

Storage becoming disposal

- Unfair to ask people to think about this as it seems that decision makers are not being honest up front – should be either storage or disposal from the outset
- Disposal of short-lived waste with LLW as a co-disposal would be a clearer way of explaining this.

QUESTIONS FROM PAPERS

Paper 3

Does the framework for the CD provide the information consultees will need?

- Include as much info as possible on the website so that people can access the level of information that they need.

Paper 3a

Should the paper cover ILW and LLW for which there is no suitable disposal option?

- Yes as there is nothing else to do with it so the policy needs to cover it.

Should the policy cover Rosyth?

- Definition of nuclear site is incorrect as many non-nuclear sites will have authorisations but not be nuclear sites.
- SG doesn't have vires over defence waste but SEPA has some control over where waste is disposed of.
- Why should there be any difference in policy for defence waste compared to other waste producers? Should be included in the CD to open up discussion.
- Need some sensibility about disposing of waste to the most appropriate/fit for purpose facility rather than just being near site

Paper 3d

Should exports be permitted?

- Should be raised in the consultation
- Need to consider import as well as export

Scottish Government's higher-activity radioactive waste policy workshop
24 June 2009
Group D3 – Near Surface, Near Site 11:25 – 12:30

Do you agree with the proposed definition for 'Near Surface' from the GRA?

- Add in to consultation reference to deep geological disposal. Differentiate the process in terms of what near surface disposal does not provide, i.e. isolation from surface environmental processes.
- Consultation needs to include the GRA definition.
- Is stores marked near surface facility.
- Consider people would be content with "several tens of metres".
- Need to consider groundwater.
- Concept of different types of storage.

How should Visual Impact be considered when developing the policy?

- Visual impact of the facility or the construction of the facility.
- Do not focus purely on the visual impact
- Not just local communities require to be engaged
- Look across to end states
- ILW remain will remain (safe store)
- Communities (impact on)

Do you agree with the proposed definition for near site based on proximity principle.

- Disposal/storage on Scottish waste sent for treatment and returned.
- Coming (waste) to Scotland from elsewhere
- Need to capture the volume of waste
- Ask if some criteria need more weight – don't just focus on transport
- Look at regional and national support of facilities.
- 25% inventory need a storage facility – long term.
- A cost comparison – how does the consultation of costs and reference plans for storage.
- Proximity principle may apply differently to storage and disposal.
- Should consultation include public acceptability be discussed in the document? How does the public perceive "proximity principle"?

Is the idea of Reversibility – Retrievability Useful?

- It appears to go against the Scottish Government policy.
- Explains well but why are we (The Scottish Government) using it?
- Reversibility and retrievability concept set against the policy.
- Explains well phased process.

Do you agree that the regulatory system is "sound"?

- Issues between NII/ SEPA/ EA regarding storage – long term storage could cause tensions.
- Not clear in consultation – more clarity on roles of NII/ SEPA /EA/ OCNS/ HSE
- Should near surface, near site have a licence?
- Better coordination between regulators
- Presumption that facilities will be on site.
- Will not being a licence site make life more difficult?
- Storage to disposal facility – is it still a licence site?
- Consultation benefit from what we currently do and what is proposed.
- How does planning legislation fit into what is being considered – what can and what can't be done?

Comments on the consultation

- Environmental principles to be included
- Is there a rationale for the statement made by Minister in June 2007?
- Current life time plans for sites do not take into account the proposed policy regarding Higher Activity Radioactive Waste.
- There needs to be an explanation and greater clarity.

General Comments

- Add in what international best practice is.
- Importance of transport – volume of materials
- Environmental impact
- Social impact
- Business impact
- Transport needs to be brought out more and infrastructure
- The consequences of climate change
- The consequences if near surface near site not on a licensed site.

Scottish Government's higher-activity radioactive waste policy workshop
24 June 2009
Group 4 – Near Surface, Near Site 10:20 – 11:20

Do you agree with the proposed definition for 'Near Surface' from the GRA?

- At what depth would there be leakages (seepages)?
- To bring out what is meant by a risk based approach
- Is the facility to remain open or closed?
- Group comfortable with the reference to depths to several tens of metres
- Definition of storage and disposal should be looked at as separate issues.
- Look at storage and disposal together looks like we are sitting on the fence and needs to be clearer.
- The public and the media do not understand "risk". Will need to explain
- Need to explain some of the technical terms, i.e. short-term.
- Public perception on the meaning of 'disposal' (out of sight, out of mind – no monitoring, retrievability).
- Need to be clear of the intentions of 'disposal'. Link to retrievability.

How should Visual Impact be considered when developing the policy?

- Definition of visual impact and transport, what does this mean?
- Visual impact – perception.
- Visual impact covered by planning regimes etc.
- Other impacts need to be considered not just visual. Question should not focus solely on visual.
- Consultation question, life cycle impacts
- Environmental impacts.

Do you agree with the proposed definition for near site based on proximity principle

- Disposal not in Scotland
- Clear that "regional" is UK.
- Proximity to 'sites' (nearest licensed site).
- Existing nuclear sites should have store facilities for smaller sites to move waste to.
- Climate change, carbon footprint.
- To name the sites, what's on the site, transport and distances.
- Cost implications – number of facilities.
- Self-sufficiency.
- Dealing with the spoil.
- Presumption for onsite storage.
- Fixed points distorting 'look at above ground' assumption.

Is the idea of Reversibility – Retrievability useful?

- Papers were not helpful – needs further work.
- Storage – people can get at it.
- Disposal – increasingly difficult to get at.
- Out of sight, out of mind.
- Engineering capability at the start or at the end.

Do you agree that the regulatory system is "sound"?

- No mention of Article 37.
- Treatment of material – transfrontier shipment.
- Co-ordination of key regulators
- Site licence issue

- What are the plans from the regulators for this changing in the future?
- Regulators not worked in practice – issues with staffing, management of regulatory systems
- Nuclear Industry Inspectorate not in Scottish Government control.
- Should Scotland have control of the NII?

Comments on the consultation

Contents list

- Waste management principles should be incorporated.
- Costs to be factored in.
- Near surface, near site – general discussion on concepts
- What will happen to current facilities?
- Waste disposals options for overseas.
- Look at new build.
- Discussions on next steps.
- Clarify – short lived – long lived. Include numbers.
- Consultation south of the border and linked to MRWS.
- Explanation needed as to what is happening now – on sites and policy.
- What balance between concentrate, contains and disperse.
- Best practice available – treatments.

Group 1

Elizabeth	Atherton	Nuclear Decommissioning Authority (NDA)
Randall	Bargelt	Nuclear Decommissioning Authority (NDA)
Ian	Barlow	Department For Transport (DfT)
Bruce	Cairns	Department of Energy and Climate Change
David	Flear	Dounreay Site Stakeholder Group
Councillor Brian	Goodall	Scottish Councils Committee On Radioactive Substances (SCCORS)
Steve	Griffiths	Nuclear Installations Inspectorate (NII)
Simon	Harley	Committee for Radioactive Waste Management (CORWM)
Stuart	Hudson	The Scottish Government
Bryers	John	British Energy
Steve	Kelly	Ministry of Defence
Peter	Roach	Hunterston A, Magnox North
Peter	Roche	Independent

Group 2

Mick	Bacon	Nuclear Installations Inspectorate (NII)
Fred	Barker	Nuclear Legacy Advisory Forum (NuLeAF)
Christine	Bruce	Ministry of Defence
Kevin	Davis	Hunterston A, Magnox North
Tom	Dean	Torness Local Liaison Committee
Shelly	Mobbs	Health Protection Agency (HPA)
Alan	Mowat	Dounreay Site Restoration Limited (DSRL)
Councillor George	Regan	Scottish Councils Committee On Radioactive Substances (SCCORS)
Keith	Riding	Nuclear Decommissioning Authority (NDA)
Ian	Robertson	Scottish Environment Protection Agency (SEPA)
Nina	Staebler	The Scottish Government
Shelagh	Milligan	Hunterston A, Magnox

Group 3

Alex	Anderson	Dounreay Site Restoration Limited (DSRL)
Roddy	Anderson	British Energy
Margaret	Burns	Committee for Radioactive Waste Management (CORWM)
John	Collinson	Magnox
Adrian	Freer	Office for Civil Nuclear Security (OCNS)
Peter	Hillman	Ministry of Defence
Ian	Laidlaw	Nuclear Decommissioning Authority (NDA)
John	Lamb	Hunterston A & B Site Stakeholder Group
Eric	McRory	Scottish Environment Protection Agency (SEPA)
Sean	Morris	Scottish Nuclear Free Local Authorities
Clive	Williams	Environment Agency
Alistair	Wivell	Nuclear Decommissioning Authority (NDA), Non-Executive
Munro	Will	Food Standards Agency

Group 4

Tim	Bond	Magnox
Pam	Duerden	Chapelcross, Magnox North
Raj	Jassel	British Energy
Lorraine	Mann	Independent
Mervin	McMinn	Nuclear Decommissioning Authority (NDA)
Councillor John	Mitchell	Scottish Councils Committee On Radioactive Substances (SCCORS)
Jim	Morse	Nuclear Decommissioning Authority (NDA)
Murdo	Murray	Babcock, Rosyth
Fiona	Oloo	URS Corps
Fred	Plumb	Ministry of Defence
Andrew	Sloane	Committee for Radioactive Waste Management (CORWM)
Roger	Wilson	Scottish Environment Protection Agency (SEPA)