

May 31st, 2010

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To: European Commission
DG ENER/Unit Nuclear energy, transport, decommissioning &
waste management (DDG2.D2)
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Comments from the Swedish NGO Office for Nuclear Waste Review, MKG, on the organization's submitted questionnaire on a Nuclear Waste Directive

The Swedish NGO Office for Nuclear Waste Review, MKG is an environmental NGO working solely with nuclear waste issues. The organisation receives funding from the Swedish Nuclear Waste fund and the largest member organisation is the Swedish Society for Nature Conservation (SSNC).

MKG has submitted the questionnaire on the Nuclear Waste Directive in the ongoing consultation process. The filled-in questionnaire is enclosed as an addendum.

MKG wishes to add the following comments to some of the fields that were, or were not chosen in the questionnaire.

2.2 Challenges

Lack of a permanent and safe solution for the disposal of high level waste and spent fuel and lack or little progress in the implementation of geological disposal for high level waste and spent fuel subject to direct disposal

The European Commission needs to pay attention to and understand the present situation regarding the possibility of a total breakdown in the so highly praised "Swedish model" for nuclear waste management. In the last few years it has become apparent that the KBS method developed for many

years by the Swedish Nuclear Waste Company, SKB, has been relying on basic scientific assumptions that have high risk of not holding out in the forthcoming licensing proceedings. There are many outstanding issues, but the most important one is the fundamental questioning of the assumption that copper is almost inert with regards to corrosion in an oxygen-free repository environment, an assumption that is likely to be scientifically incorrect. This issue has very negative implications for the long-term safety case of the KBS-method that relies on the artificial barriers of copper and clay to isolate the high-level waste from man and the environment for hundreds of thousands of years.

The copper corrosion issue is contested by the Nuclear Waste Company, SKB, as are other unresolved issues that effect the safety case including buffer erosion, permafrost and earthquake risks during glaciation. These issues will eventually be resolved, but MKG advises the European Commission to proceed with caution regarding the KBS method as an example of a successful waste management strategy, both when working with the Nuclear Waste Directive and when working with the Technology Platform for management of spent nuclear fuel and other high-level waste.

Lack of a legislative framework providing appropriate arrangements for a high level of safety of spent fuel and radioactive waste management

The Swedish model for a legislative framework that puts all the responsibility on and resources in the hands of industry is likely to have proven to be a mistake. The framework requires a strong, independent and well-financed regulator in order to work effectively. If not (see next point), there is a great risk that the industrial implementer may grow to strong and may use the resources to its own advantage. Even if the regulator is strong and highly critical in its work it is advisable to also see to it that major funding is available for research and development free from industry influence to provide the capability for scientific and technical peer review.

Lack of independence of the regulatory authority

Since 2008 the two previous Swedish regulators, the Nuclear Power Inspectorate and the Radiation Protection Institute have been combined into the Swedish Radiation Safety Authority. The new authority is flexing its independence in a trustworthy way. However, the Swedish Nuclear Power Inspectorate that for long held the main responsibility for regulatory control of the work done by the Swedish Nuclear Waste Company, SKB, from the mid-1980s through to the beginning of the 20th century was not up to standard regarding independent review of SKB. That so many severe safety case issues are being raised now and not when they should have been historically, is an example of a national nuclear waste program out of control.

The lack of political interest in the nuclear waste issue during the same time period did likely worsen the problem. At least it was not properly dealt with despite warnings from independent national review.

Lack of transparency

In the relatively open Swedish society when it comes to availability of public information it has become a major problem that the implementer is industrial and thus not open to scrutiny as a public body. At present there is a major dispute in the consultation process for the repository for spent nuclear fuel where the Swedish Nuclear Waste Company, SKB, refuses to provide information on issues in the safety case.

On the positive side there is the experience of the last few years when the Swedish Council for Nuclear Waste has been operating a transparency project using the Riscom model. This has allowed issues that have previously not have a forum for discussion to be openly ventilated in public.

Insufficient scientific infrastructure

When an industrial implementer is given basically unlimited resources for research and development the result in a smaller country is that in the long run all the scientific resources at universities and consulting companies in certain fields become completely dependent on funding from the implementer. Such a development, which we have had in Sweden, easily leads to a situation where confirmation bias may take the place of questioning scrutiny of raised issues.

Lack of a permanent and safe solution for the disposal of low and intermediate level waste

MKG has no detailed information regarding the safety case of the Swedish repository for low-level and medium-level short-lived waste, SFR, but the regulator is raising serious issues also regarding this operating repository. With the experience of the unravelling of the safety case for the repository for spent fuel in mind, there may be reasons to question whether the SFR repository provides an environmentally safe repository solution.

4.1 Possible Approaches for Binding EU Legislation (option 1)

To ensure that the licence holder has the prime responsibility for the safety of radioactive waste and spent fuel management

As discussed above, if the licence holder is an industrial implementer and has the prime responsibility for radioactive waste management it is vital that

there is a strong and independent regulator as well as major available financing for industry-independent research and development.

The licence holder always has to have full economical responsibility according to the polluter pays principle (PPP).

To foresee geological disposal as the endpoint for high level waste and spent fuel, if regarded as waste

It is still uncertain whether geological disposal will provide sufficient long-term safety for nuclear waste disposal. Certainly shallow (300-700 m) disposal in mined tunnels appear problematic. The use of deep boreholes (3-5 km) may provide a better alternative but the safety case is not yet proven. Until such a time, the European Commission should refrain from using the word “endpoint” or similar nomenclature when discussing geologic disposal.

To implement transparency arrangements and to actively involve the public in the decision-making process

The Aarhus Convention provides a sound basis for the development of new processes with regard to a nuclear waste directive. However, it is problematic that it is not obligatory to implement the principles of the convention in national law. National law can therefore counteract the convention. The joint EC/ANCLI ACN workshop in Luxemburg in April 2010 clearly confirmed that this is a fundamental problem. National secrecy legislation prevents access to information to public documents and to information from industry. National legislation can also restrict access to justice, as is the case in Sweden where legislation limits to the right of the general public and organisations to participate in judicial trials and to make appeals.

The Aarhus Convention and a nuclear waste directive are separate identities and should be kept apart. It is obvious that the posed question should be reformulated in order to emphasize the issue of how the perspective and principles of the Aarhus Convention can contribute to the development of a nuclear waste directive.

The most important experience described from the countries that presented their nuclear waste processes at the ACN Luxemburg meeting was that core issues regarding choice of method and of siting could not be discussed. There have been indications that the nuclear waste directive may prescribe a certain choice of method. If this becomes a reality, processes that are carried out in the spirit of the Aarhus Convention risk being mock processes. What are needed are processes that are proper and unprejudiced.

The need for nuclear waste directive is to a large extent the result of repeated failed national processes and is likely to promote community-industry partnerships. It is important that directive should not contain clauses that limit local processes that take place in the spirit of the Aarhus convention. Instead the experiences from

the Cowam and Argona projects should lead to wording in the convention in support of using the Riscom model for dialogue processes.

4.2 Possible Approaches for Binding EU Legislation (option 2)

Plans and technical solutions

MKG once again advises the European Commission to proceed with great caution with regard to the Swedish/Finnish KBS method.

Success indicators

MKG is against using the word success in any context regarding the present state of knowledge of nuclear waste management. The word success could perhaps be used with regards to targets to reduce the production of new nuclear waste. As an example, if a target was set to decrease the production of nuclear waste in the European Union by 20% until the year 2020, and that target was met this could be an indicator of success.

That concludes the comments by the Swedish NGO Office of Nuclear Waste Review, MKG. The questionnaire is amended.

Best regards,

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Consultation on approaches for a possible EU legislative proposal on the management of spent fuel and radioactive waste

1. ABOUT YOU

Do you reply as an individual or on behalf of an organisation?	Organisation /Company
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Organisation name

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Kind of organisation/company

Non-governmental Organisation

Region of residence

European Union

Which European Union country?

Sweden

2. YOUR PERCEPTION OF THE SITUATION IN YOUR COUNTRY OF RESIDENCE

2.1. Do you consider that the measures taken in your country of residence for ensuring the safe management of spent fuel and radioactive waste are sufficient?
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No

2.2. What are the main challenges related to the spent fuel and radioactive waste management with which your country of residence is still confronted?
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<p>Lack of political, solution oriented leadership</p> <p>Lack of a legislative framework providing appropriate arrangements for a high level of safety of spent fuel and radioactive waste management</p> <p>Lack of independence of the regulatory authority</p> <p>Lack of a permanent and safe solution for the disposal of low and intermediate level waste</p> <p>Lack of a permanent and safe solution for the disposal of high level waste and spent fuel</p> <p>Lack or little progress in the implementation of geological disposal for high level waste and spent fuel subject to direct disposal</p> <p>Insufficient scientific infrastructure</p> <p>Insufficient involvement of the public in the decision-making process</p> <p>Lack of transparency</p>

3. GENERAL QUESTIONS ON THE PREFERRED APPROACH FOR EU LEGISLATION GOVERNING THE MANAGEMENT OF SPENT FUEL AND RADIOACTIVE WASTE

3.1. Do you consider that a common approach of all the 27 Member States at EU level is needed for

No opinion

tackling the challenges related to the spent fuel and radioactive waste management with which your country of residence might still be confronted?	
3.2. What would be your preferred instrument of Community intervention?	Binding legislation (e.g. Directive)
3.3. Do you consider that legal certainty would be enhanced if the principles of the IAEA Safety Fundamentals and the Joint Convention would become part of Community legislation?	Yes

4. POSSIBLE APPROACHES FOR BINDING EU LEGISLATION GOVERNING THE MANAGEMENT OF SPENT FUEL AND RADIOACTIVE WASTE

4.1. Option 1 consists in strengthening the internationally accepted principles and requirements laid down in the IAEA Safety Standards and the Joint Convention on the management of radioactive waste and spent fuel throughout the Community. It would include important requirements as to the national legislative and regulatory system and would require Member States to adopt national programmes for the management of spent fuel and radioactive waste. Which are the fundamental principles and requirements that Member States should comply with under this policy option?	<p>To effectively protect future generations from the dangers of ionising radiation</p> <p>To establish and maintain a national legislative, regulatory and organisational framework for spent fuel and radioactive waste ('national framework')</p> <p>To establish and maintain a competent regulatory authority in the area of spent fuel and radioactive waste management</p> <p>To ensure the effective independence of the regulatory authority</p> <p>To provide to the regulatory authority the necessary legal, human and financial resources in order to fulfil its functions</p> <p>To ensure verifications of compliance with legal obligations</p> <p>To ensure enforcement of legal requirements</p> <p>To establish and maintain a dedicated organisation at national level for the management of radioactive waste and spent fuel, if regarded as waste for direct disposal</p> <p>To ensure appropriate expertise and training to all the parties concerned</p> <p>To apply the "polluters pay" principle</p> <p>To ensure adequate financial resources for the safe management of spent fuel and radioactive waste</p> <p>To ensure the establishment and implementation of quality assurance programmes</p> <p>To implement transparency arrangements</p> <p>To actively involve the public in the decision-making process</p> <p>Other</p>
4.2. Option 2 would contain, in addition to option 1, specific requirements for the scope, contents and review of national programmes for radioactive waste and spent fuel management throughout the Community. Which elements (one more more) should be included in the national programme for spent fuel and radioactive waste management?	<p>Roles and Responsibilities</p> <p>Decision-making process</p> <p>Inventories of radioactive waste and spent fuel</p> <p>Disposal routes</p> <p>Skills and programmes for research and development</p> <p>Main milestones</p> <p>Time-table</p> <p>Cost assessment</p> <p>Financing system</p> <p>Remedial actions for legacy waste</p> <p>Other</p>

5. MEANS TO VALIDATE THE IMPLEMENTATION OF BINDING LEGISLATION

5.1. Which of the following requirements (one or more) would you consider as valuable options (one or more) for ensuring the implementation of binding EU legislation at the level of your country?	<p>To organise periodic international peer-reviews on the regulatory system (e.g. regulatory body, licensing system , enforcement)</p> <p>To organise periodic international peer-reviews on the national programme</p>
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To report to the Commission and to the other Member States on the results of the international peer-reviews, when these are available
 To report separately to the Commission on the implementation of the legislative instrument, in addition to the national reporting under the Joint Convention to the IAEA

6. POSSIBLE IMPACTS OF BINDING LEGISLATION

6.1. As to potential impacts, which of the following (one or more) would you expect? Enhanced public involvement in the decision making

7. ADDITIONAL SUGGESTIONS AND THOUGHTS?

7.1. Do you have additional suggestions or more specific thoughts on a potential legal EU instrument for spent fuel and radioactive waste management? (max. 1000 characters, no WEB links).

The Swedish NGO Office for Nuclear Waste Review, MKG, has sent a separate letter to the Commission with clarifications on some of the marked items above.

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