

WNA Report (April 2006):

“Ensuring Security of Supply in the International Nuclear Fuel Cycle”

Emphasis on the back-end views of this report concerning the non-proliferation aspects

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*Panel: Global
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What is the WNA

The trade association of the global nuclear industry with a worldwide membership

- Based in London, UK
- Web-site: <http://www.world-nuclear.org>



Our membership makes us unique, global and truly representative

- Over 130 industry enterprises from over 30 countries

WNA Report: Background

In early 2005, an IAEA Expert Group on Multilateral Approaches for NFC issued a report

This report outlined the elements of a potential strategy aimed at:

" increasing non-proliferation assurances concerning the civil nuclear fuel cycle, while preserving assurances of supply and services around the world"

WNA Report: Background

WNA Report

Ensuring Security of
Supply in the
International Nuclear
Fuel Cycle



To contribute an industry response to the IAEA's important initiative, a WNA working group issued a related WNA report in April 2006

This report is publicly available on the WNA web-site:
<http://www.world-nuclear.org>



WNA Report: General Findings

WNA recognized and welcomed the objective of avoiding the spread of sensitive technologies and facilities through:

- A credible assurance of access to enrichment and reprocessing/recycling services and,
- In the longer term, the establishment of multinational NFC centres

WNA Report: General Findings

Achieving this objective means ensuring that any State embarking on a NPP building program should be able to obtain a reliable guarantee of attractively affordable supply through existing market players

Any action in fulfilment of such a guarantee would depend on the State being in full compliance with all international safeguards requirements, as determined and verified by the IAEA

WNA Report: Back-end Views

Existing reprocessing/recycling facilities capacities are sufficient to meet foreseeable demand

Any State that does not produce an annual UNF discharges sufficient to justify its own national reprocessing/recycling facility should be able to obtain adequate guarantees of supply through existing market players

WNA Report: Back-end Views

In the future, anticipating a large expansion of nuclear power could lead to increased capacities in existing facilities or new builds

Concepts of international reprocessing/recycling centres are worth pursuing and deserve further review

Such a concept could enhance guaranteed access to recycling services for countries wishing to close their fuel cycle

WNA Report: Back-end Views

Countries already possessing these technologies should be encouraged to offer their services to meet such demand

Countries without back-end facilities should have a clear cut option of having their spent fuel reprocessed and MOX fuel manufactured, at affordable prices, at national or multinational back-end facilities

WNA Report: Back-end Views

These back-end facilities should be located in countries with expertise and a high level of industrial development in this field

Establishing such arrangements would require the negotiation of inter-governmental agreements

WNA Report: Back-end Views

Final waste disposal

If, for a given State, spent fuel is considered as a final waste form, regional or international repositories must be favoured to limit the long-term dissemination of “plutonium mines” and the burden on international safeguards resources

WNA Report: Back-end Views

Final waste disposal

Further to reprocessing, vitrified waste does not pose any risk of proliferation. It may be feasible to implement a repository for vitrified waste in any State possessing a suitable geological site and industrial facilities

Such an international repository could be an incentive for some countries to choose reprocessing if the associated services for waste disposal were offered

WNA Report: Back-end Views

Fuel leasing/take back options

This should also be envisaged for any country that uses or wishes to use nuclear power, but may be not in a position to implement safe and secure disposal

This approach could be employed on a wider basis once a final repository for ultimate waste exists on an international and non-discriminatory basis

WNA Report: Back-end Views

Fuel leasing/take back options

While eventually there may be a few states prepared to host an international repository, this will probably prove politically feasible only after several of national repositories are fully operational

WNA Report: Back-end Views

In closing...

Industry is open minded and support pragmatic approaches

Promoting ideal but politically infeasible solutions may only postpone decisions that are needed to afford predictability

Commercial realities and industrial maturity are essential for a smooth evolution of back-end options



- Thank you for your attention
- Questions ?
- Contacting us: <http://www.world-nuclear.org>

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