

Summary of EnergySolutions Presentation to the Reactor & Fuel Cycle Technology Sub Committee, August 30, 2010.

First of all EnergySolutions wish to emphasise that there are several technology options available that have huge potential to influence beneficially the way used fuel is stored and disposed of here in the US. Technology options exist for used fuel storage, recycling and ultimate disposal that represent significant changes from the current strategy and moreover offer significant advantages.

Some options require little development work and deployment could begin today whereas other options require a significant amount of development work before they could be deployed commercially. Indeed EnergySolutions has developed a comprehensive solution for closing the fuel cycle based upon advanced chemical technology but using commercially proven equipment that could be fully implemented today – and it would bring significant benefits in terms of waste management and ultimate disposal, it would have minimal environmental impact and would not increase proliferation risk. We have submitted copies of our Commercial Fuel Cycle Facilities Report and EnergySolutions would be very pleased to follow up on the topic of closing the fuel cycle if it will help the sub-committee.

Closing the fuel cycle is an important issue but we believe it is just a part of what we term 'An Integrated Approach to Used Fuel Management'. Again we have made available to the sub-committee a detailed report on this alternate way forward. Today we would like to share our thoughts on some key aspects of that approach.

Global and National Energy and Environmental issues drive toward continued and expanded commercial Nuclear Energy. Disposition of Used Nuclear Fuel (UNF) is an issue that must be satisfactorily resolved to sustain and expand Nuclear Energy. Currently US UNF Policy is in a major transition and a new commercial based approach is the best path forward.

We are advocating a phased development approach that starts with lessons learned from past experiences, includes a balance of technology, social concerns, economics, and politics, and builds upon existing progress. Any future operational alternative geologic disposal site is many decades away. Used Nuclear Fuel disposition remains a Federal commitment and there are significant legal, political, economic, regulatory and social drivers for Federal progress toward addressing their UNF obligations and to support new reactor development within the next few years

Although advanced nuclear technologies, e.g. recycling, are desirable, significant political and commercial uncertainties remain on the timing of large scale facilities. Regional or Centralized "Bridging" Integrated Used Fuel Management Facilities (UFMF) that begin operation as interim storage facilities and are capable of evolving into advanced technology facilities are needed to relieve pressure on operating reactors, remove the 4,000MTU of fuel at permanently shutdown reactors, and to restore public confidence that waste from nuclear energy will be responsibly managed. These facilities would be located on volunteer sites.

Under an integrated approach we might locate substantial technology demonstration facilities at such a site. A key requirement, for instance, is to demonstrate that the thermal reactor fuel cycle can be effectively integrated with the fast reactor cycle. We believe that a program leading to a large industrial scale demonstration facility in which an head end aqueous, to remove the bulk uranium from LWR fuel; a transuranic separation and precipitation to feed fresh material into an electro winning process recycling used fast reactor fuel is required. It is appropriate for the Federal Government sponsor such work. It would be a significant inducement for a volunteer community.

Finally we believe that a significant change in the way the government discharges its obligations on UNF disposition is necessary. EnergySolutions, and many other stakeholders, consider that a new entity – we called it FedCorp – should be created. It will have full responsibility for all aspects of UNF management – interim storage; recycling if that is appropriate; and establishing the ultimate repository. It would receive the waste fee from the utilities and not be subject to annual appropriations. A variation of this concept has been proposed in draft legislation by Senator Voinovich. We fully support that legislation.

This concludes our remarks.
Thank you .