FRAMEWORKS AND MODELS IN ENGINEERING SYSTEMS
ENGINEERING SYSTEMS DESIGN (ESD.04J / 1.041J)
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PRELIMINARY GOALS – SNF, ENERGY

ALL GROUPS

SNF Goals

Group A

- Determine viability of different SNF management options
- Gain insight into safe and secure options for transportation and long-term storage of SNF
- Reduce discrepancy between actual and perceived risks
- Determine the best areas to focus technological innovation to reduce the real and potential negative impacts of SNF

Group B

- To find safest means of packaging and transporting SNF
- Evaluate options to define best transportation method
- Evaluate site
- Improving technology to effectively seal SNF tanks and make durable for transportation
- Research alternatives and evaluate feasibility
- Cooperation between agencies and bureaucracy
- Raise funds to complete project

Group C

- Securely manage present and future SNF
- Create deployable solutions for the management of nuclear energy to satisfy socio-political obstacles
- Make nuclear energy a major alternative to other means of electrical energy production
- Ensure SNF management is economically and technologically feasible
- Ensure safety of SNF in terms of reprocessing, storage, or transport

Energy System Goals

Group A

- Decrease consumption of carbon-based energy
- Increase nuclear energy production
- Provide for the energy needs of today and of the future
- Use our energy more efficiently (less wasteful)
- Become more independent as far as energy needs
- Find sustainable solutions to managing nuclear waste
- Educate the population on nuclear energy, its actual risk, and refute the myths surrounding nuclear energy
- Limit the dangers and risks associated with nuclear energy production

Group B

- Have an efficient production and distribution infrastructure in place
- Have simple and organized regulatory system
- More research into alternative fuel sources
- More public education about nuclear technology and development of better safety systems/practices to reduce risk to public
- Provide low-cost and efficient method of implementing new energy systems
- Research into reducing emissions

Group C

- Develop a plan to satisfy current and future energy demand.
- Reduce harmful greenhouse emissions in the production of electric power.
- Use clean energy source in the production of electric power.