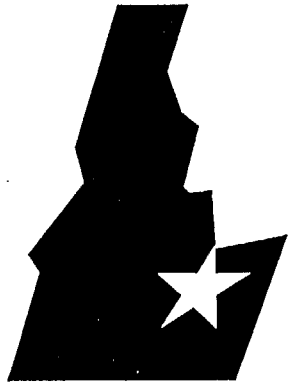

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Highlights of Key ITER Safety Issues

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Waste Management Results

- Waste disposal options are strongly dependent on trace alloying elements and impurity content of structural material
  - Impurity content is not known exactly for all potential fusion structural materials
- Key concern with steels is Nb-94, produced by neutron absorption of stable Nb-93. Nb-94 content must be less than 1 ppm for material to qualify for shallow land burial
  - Inconel 625 has 3-4% Nb content for strength
- Waste volumes for shallow land burial will generally be large (30,000 - 100,000 m^3) because of the physical size of components. The volume can be affected by design and material choices.
- We have received differing opinions on co-mixing of waste. You can mix from the same waste stream
  - First wall + blanket + vacuum vessel but probably not magnets and concrete
- Limits on decay heat and contact dose rate will also influence disposal options
- Consider use of low activation steel alloys and/or recycling