

DRAFT REPORT FOR EXTERNAL REVIEW

EXTERNAL REVIEW DRAFT: FIGURES

**BACKGROUND, STATUS, AND ISSUES RELATED TO THE
REGULATION OF ADVANCED SPENT NUCLEAR FUEL
RECYCLE FACILITIES**

ACNW&M White Paper

Prepared by

A. G. Croff, R. G. Wymer, H. J. Larson, L. T. Tavlarides, J. H. Flack

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MAJOR COMPONENTS OF PWR FUEL ASSEMBLY

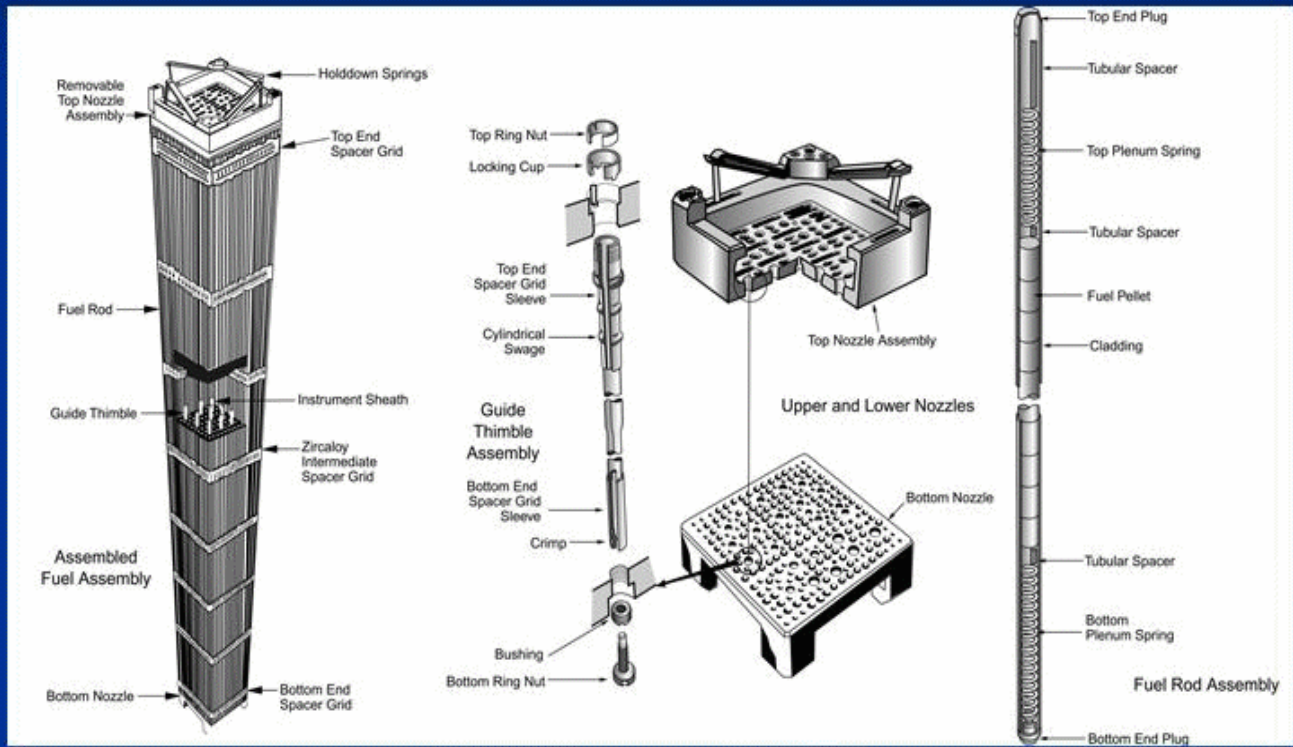


Fig. //1// PWR Fuel Assembly and Hardware



Fig. //2// BWR fuel assembly

LMFBR FUEL ASSEMBLY

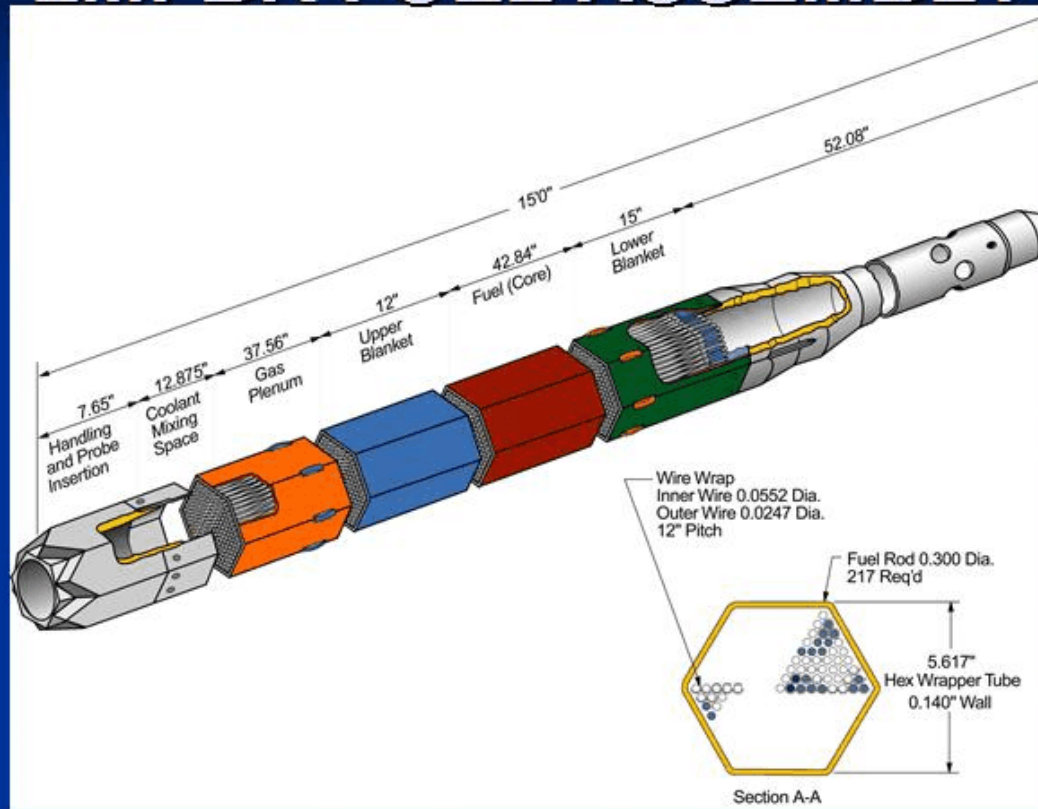


Fig. //3// LMFBR Fuel Assembly

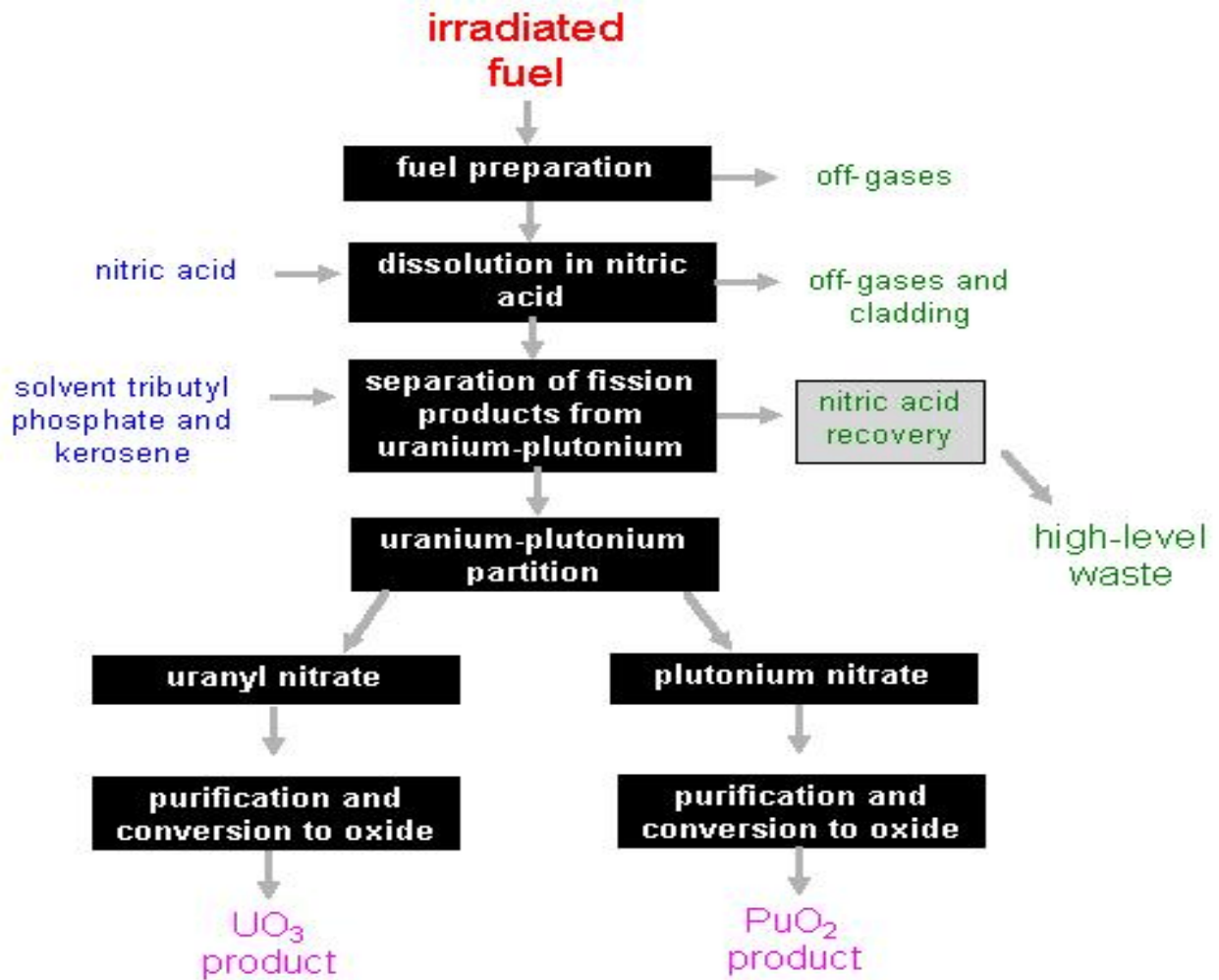


Fig. //4// Schematic diagram of the Purex process

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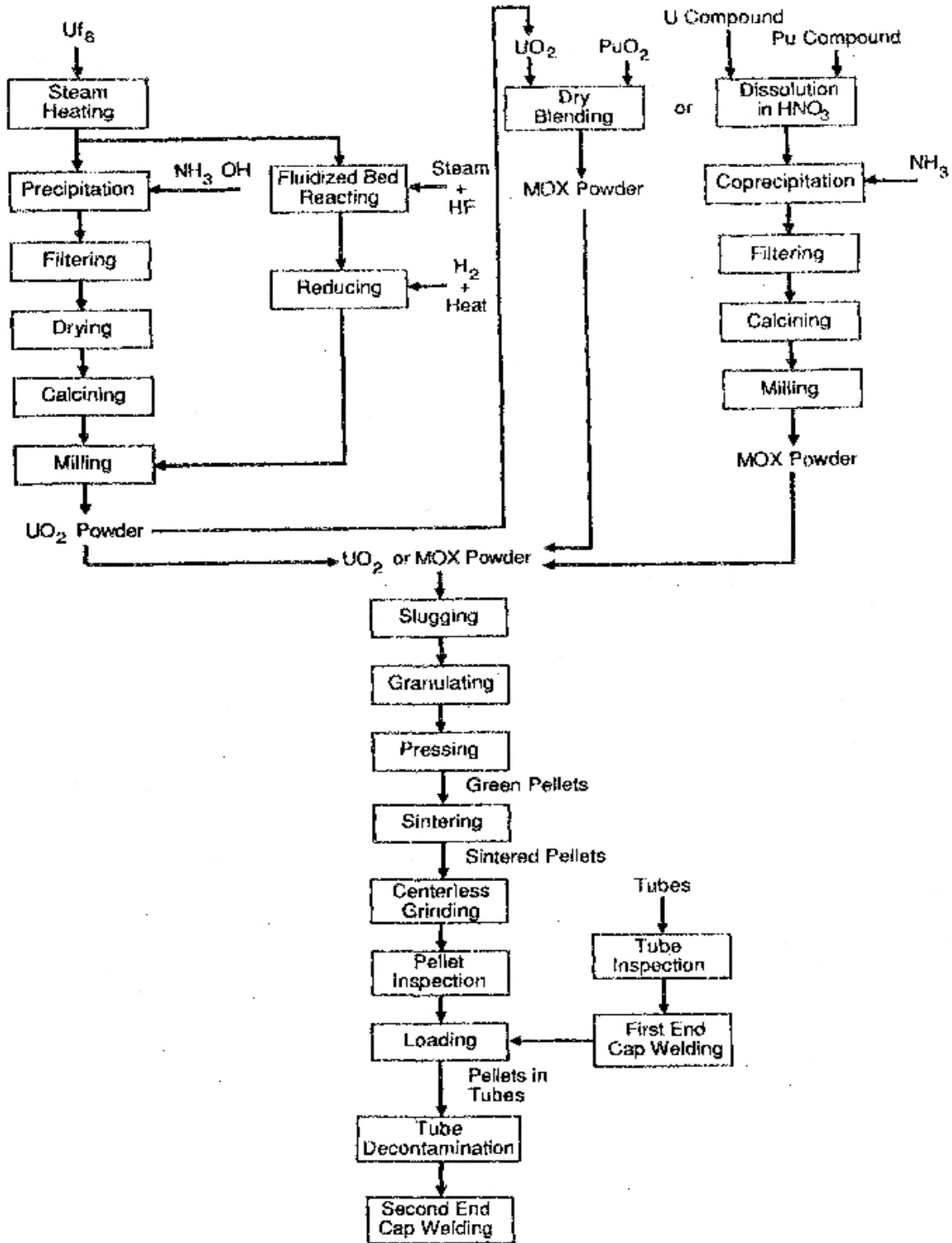


Fig. //5// Diagram of a MOX fuel fabrication Process

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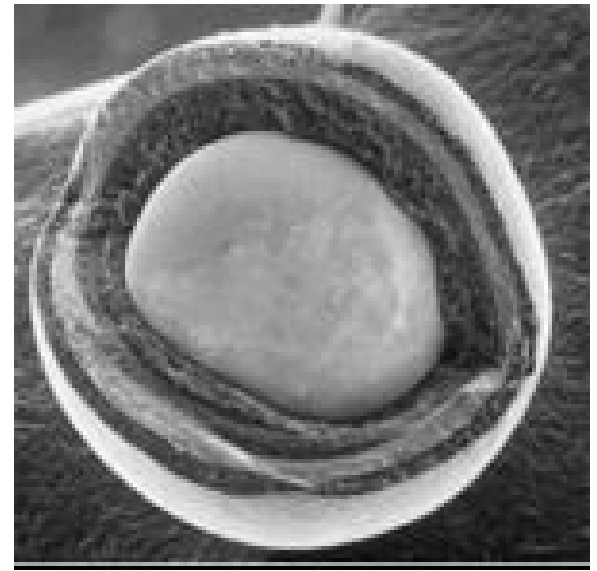
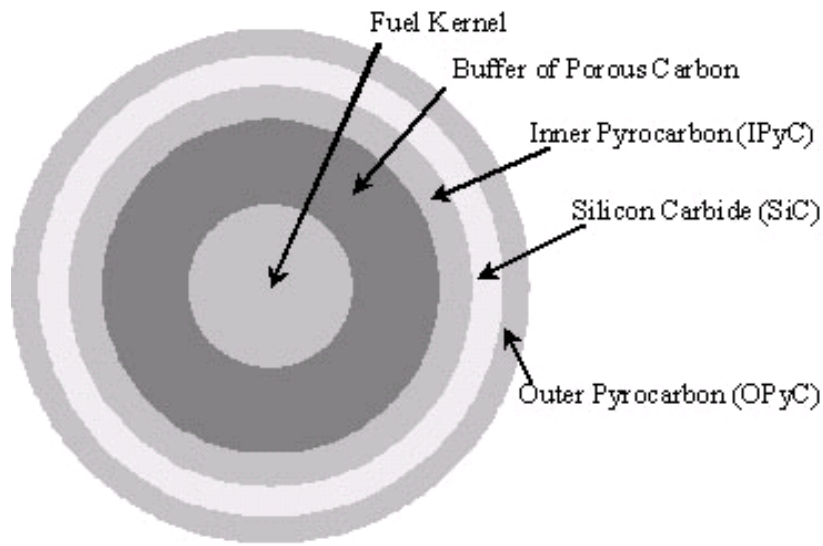


Fig. //6// Schematic and photograph of TRISO particle



Fig. //7// Photograph of German HTGR pebble fuel element

HTGR FUEL ASSEMBLY



Fig. //8// Prismatic HTGR fuel element

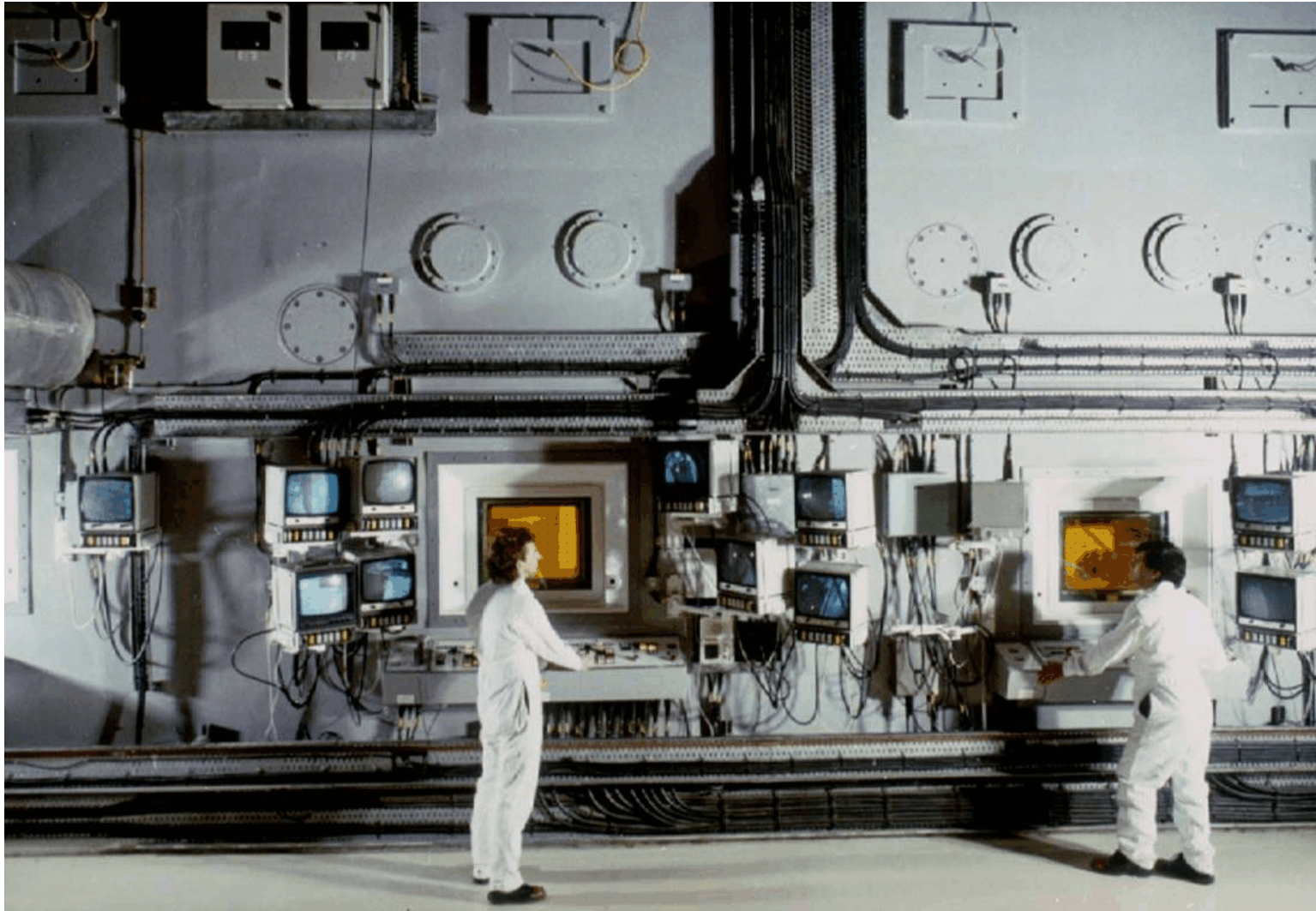


Fig. //9// BNFP fuel reprocessing plant operating area in front of cells

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Fig. //10// Glove boxes used for handling nuclear materials having low levels of penetrating radiation

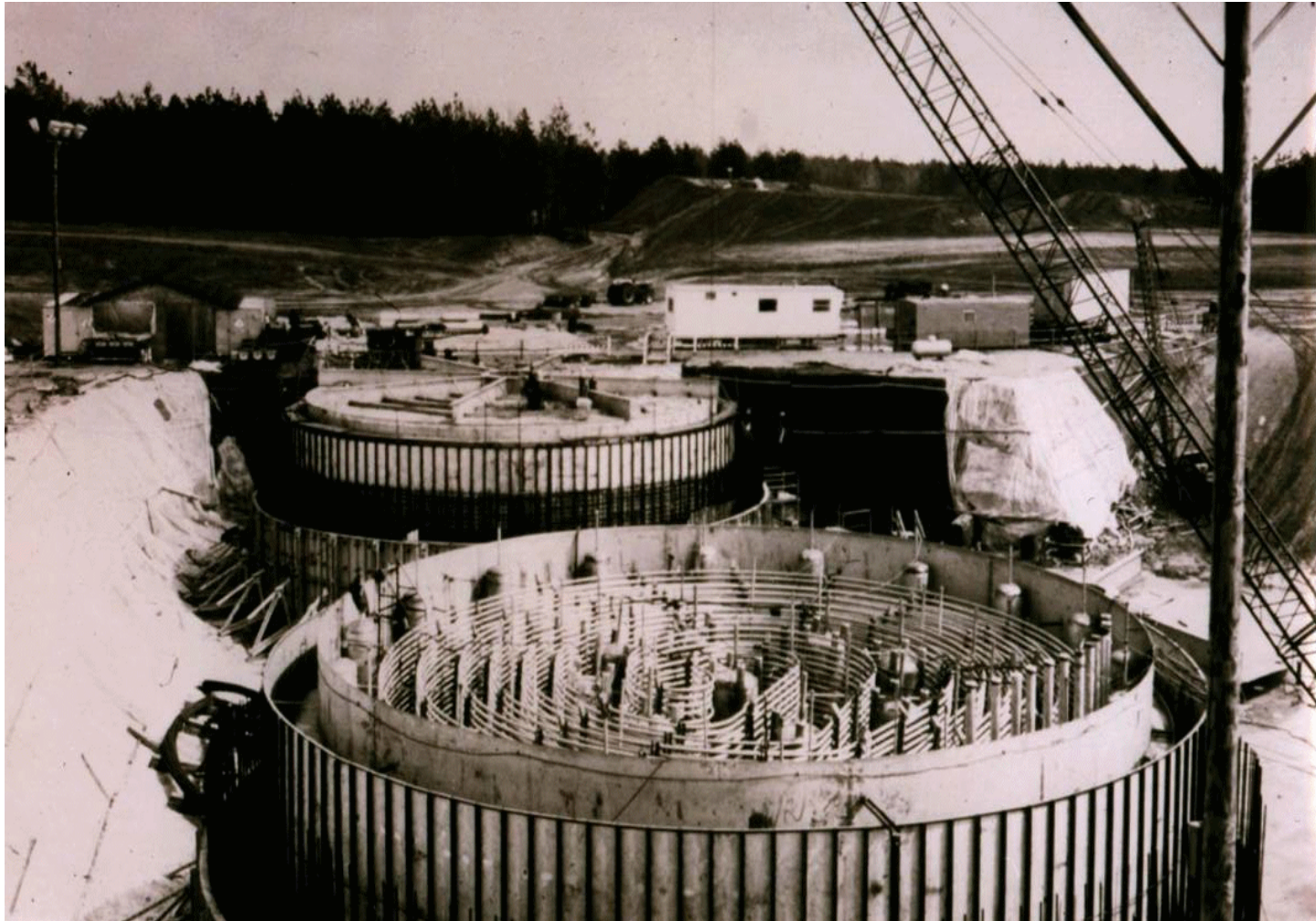


Fig. //11// Tanks for liquid HLW under construction at AGNS facility

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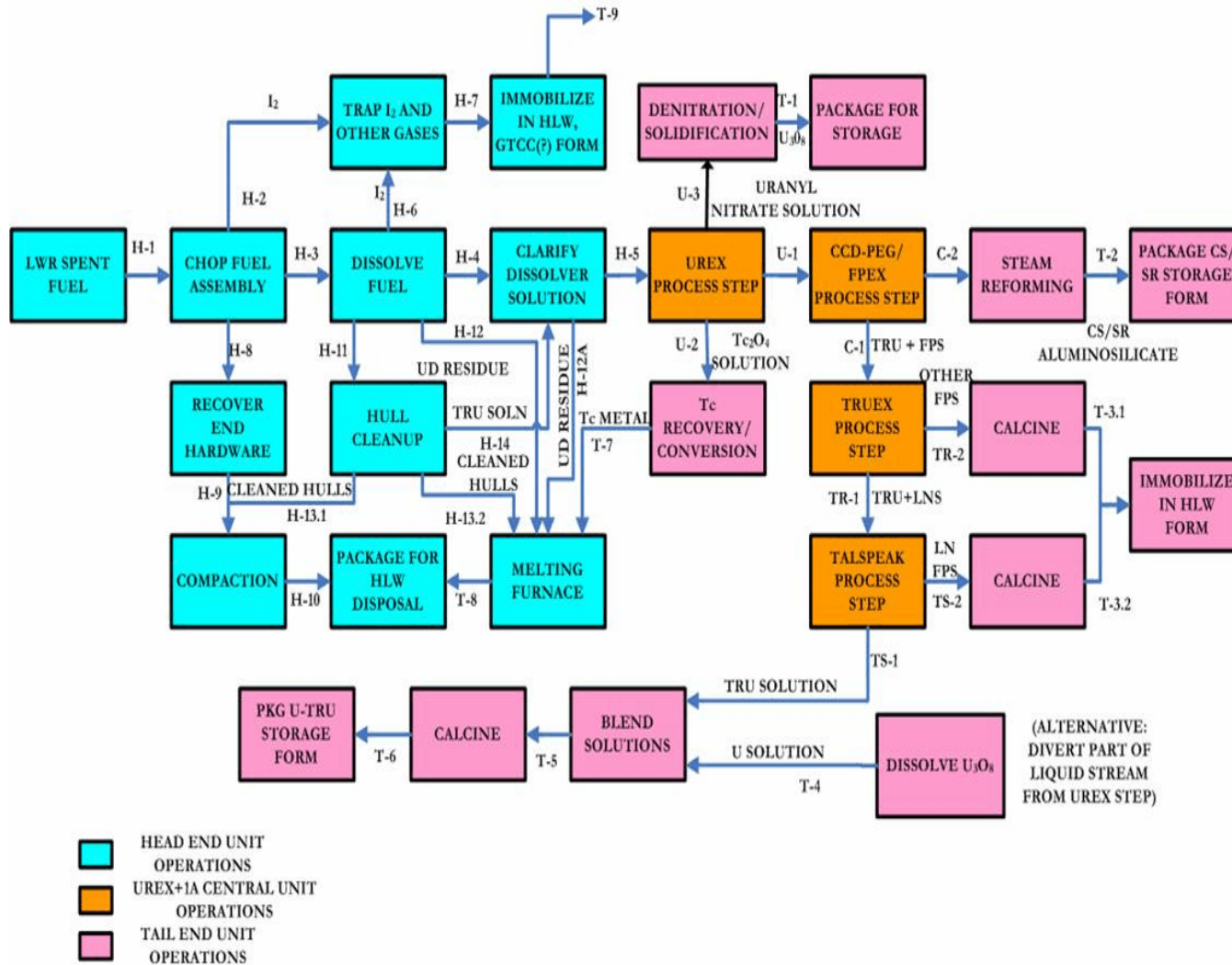


Fig. //12// Diagram of Primary UREX +1a Process Unit Operations

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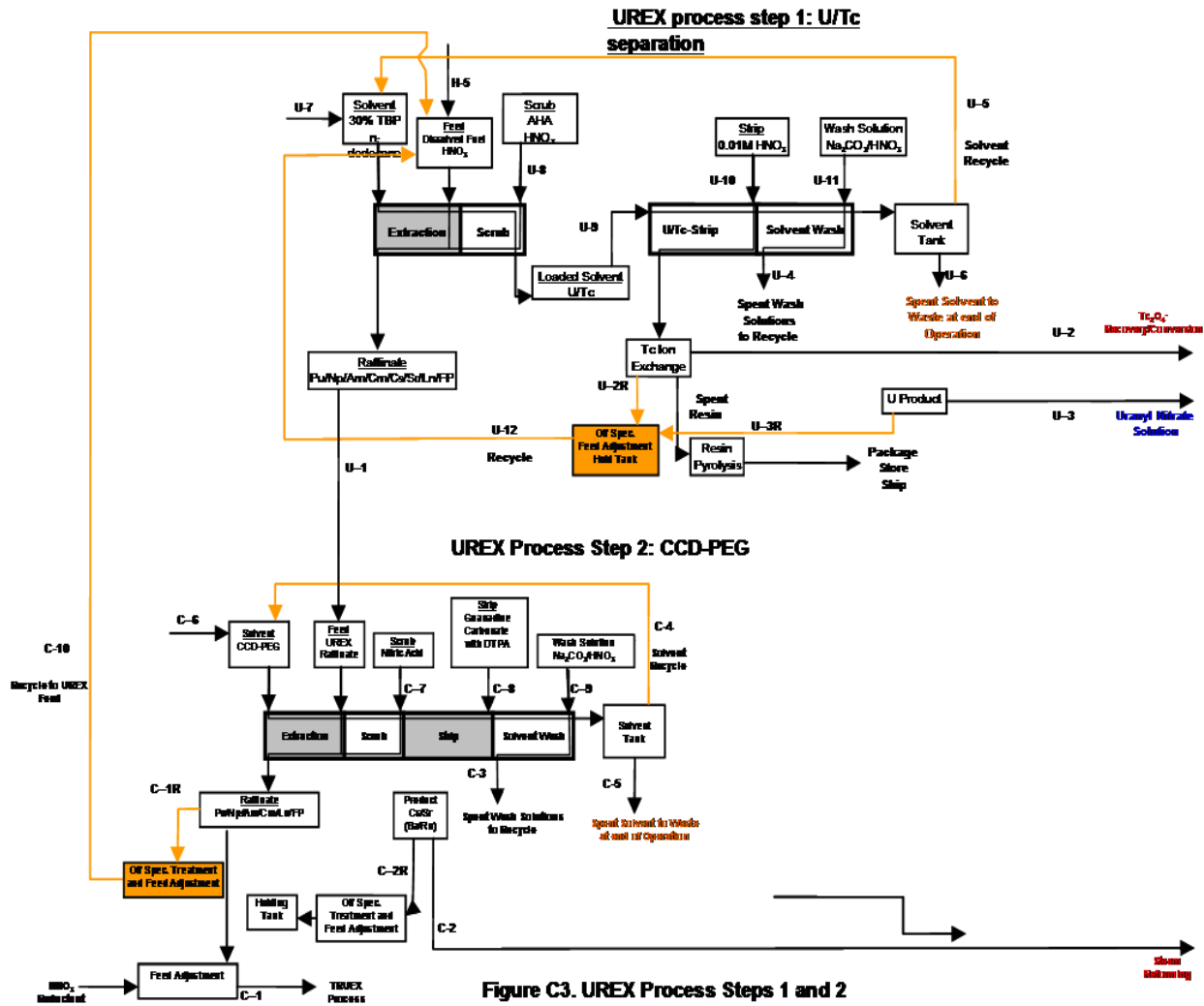


Fig. //13// Diagram of UREX +1a Steps 1 and 2

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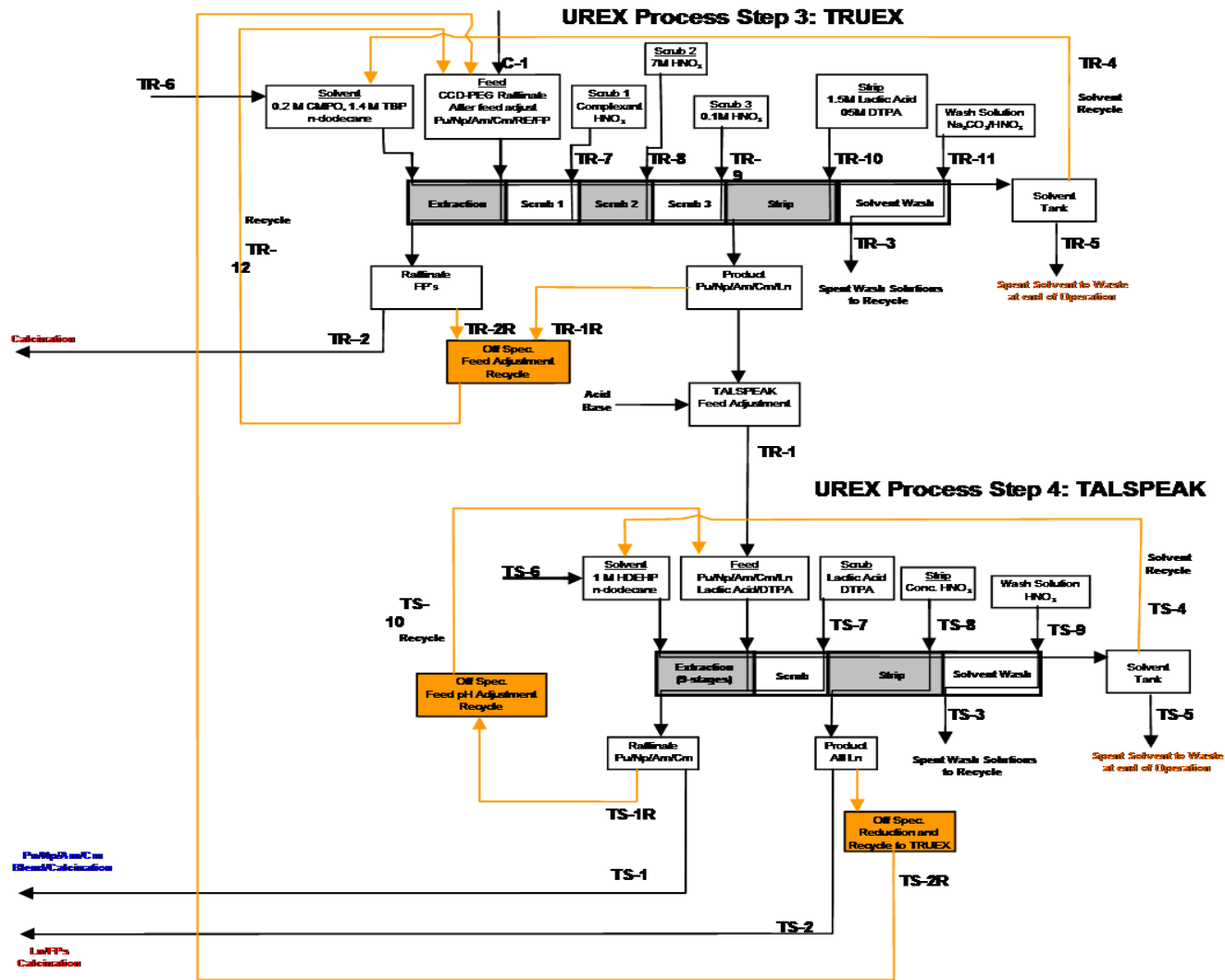


Fig. //14// Diagram of UREX +1a Steps 3 and 4

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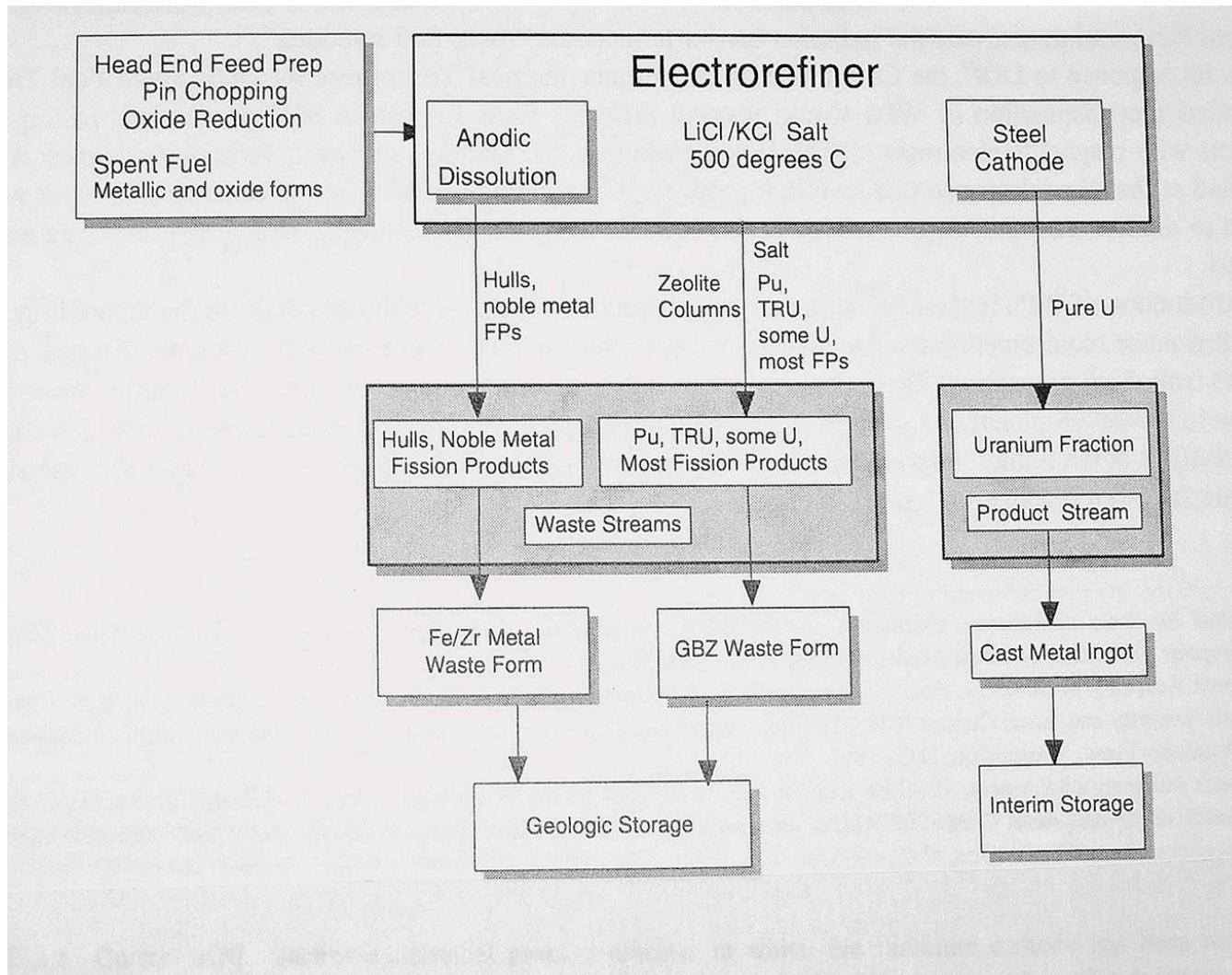


Fig. //15// Schematic diagram of pyroprocessing with uranium recovery

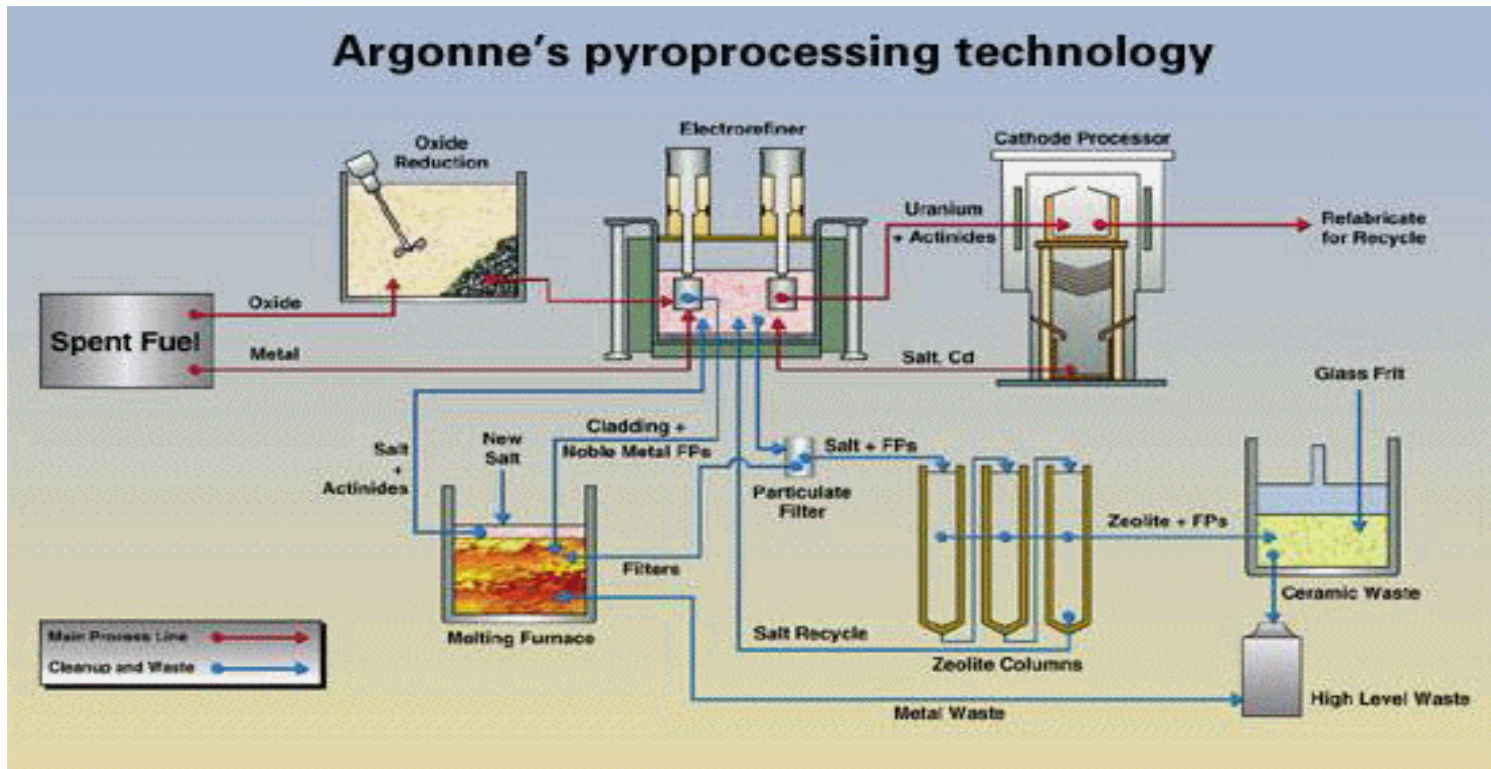


Fig. //16// Pictorial representation of pyroprocessing operations

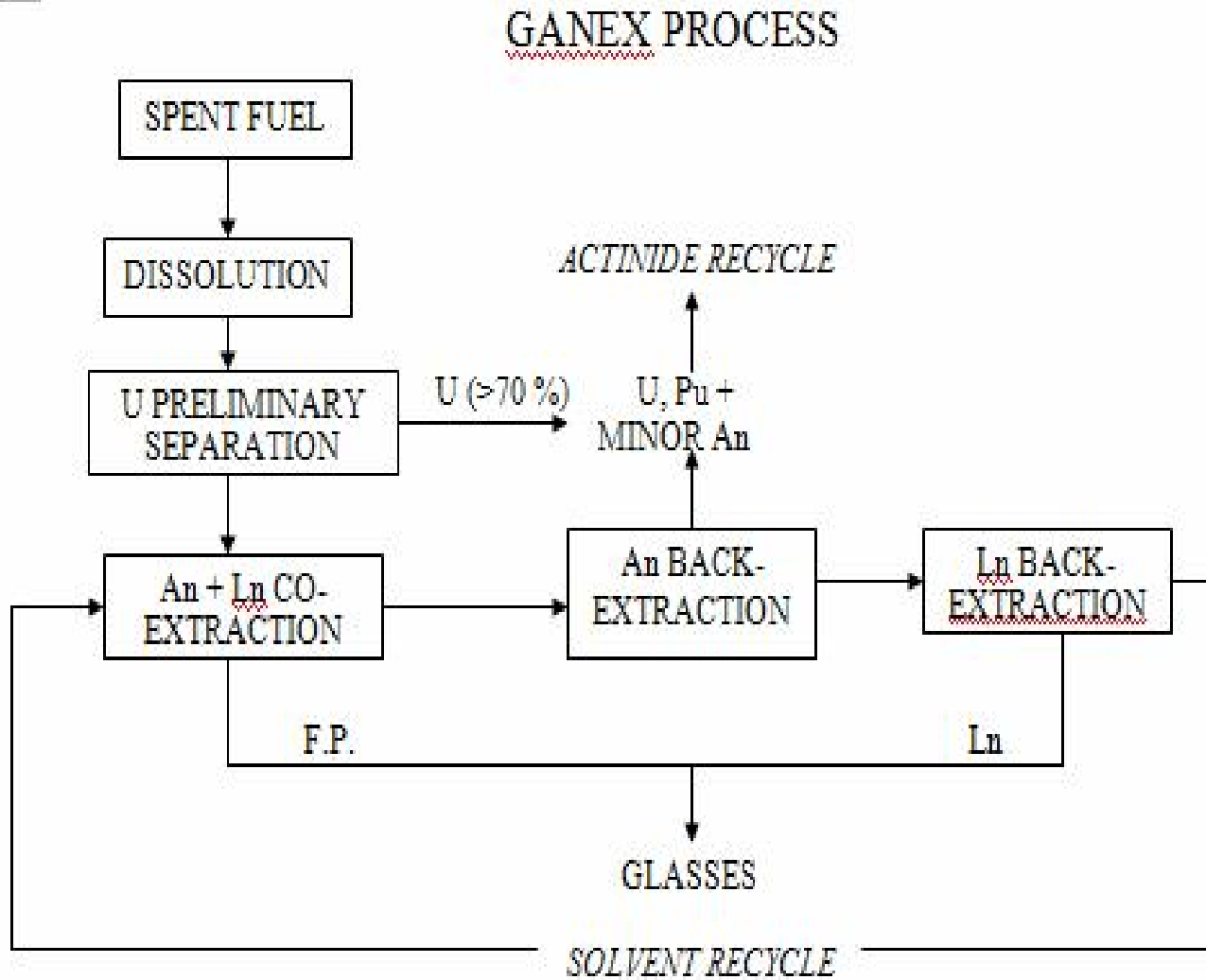


Fig. //17// The French Ganex Process (Bouchard, 2005)

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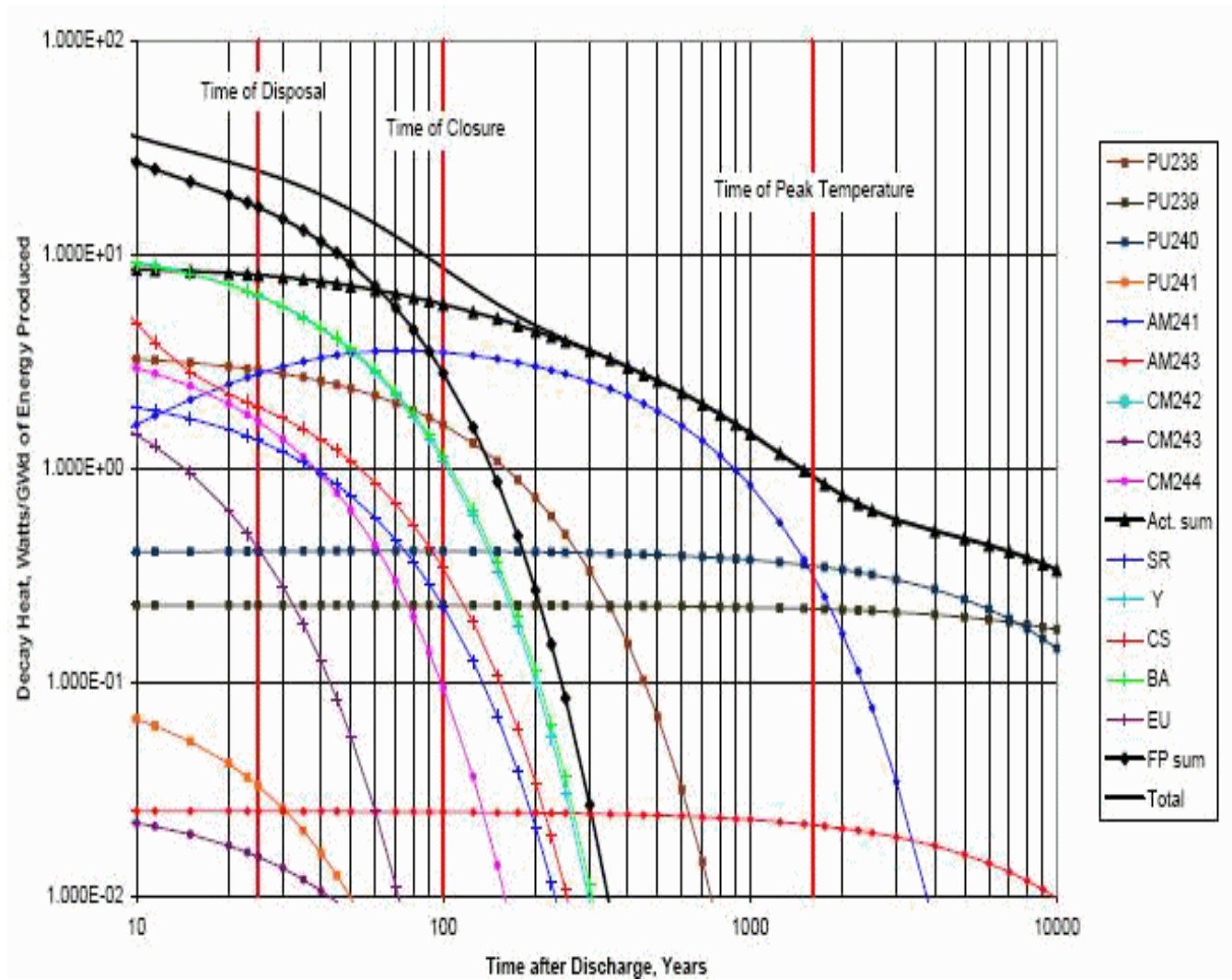


Fig. //A1// Contributions of selected actinides and fission products to heat generation rate from SNF [OECD 2006]

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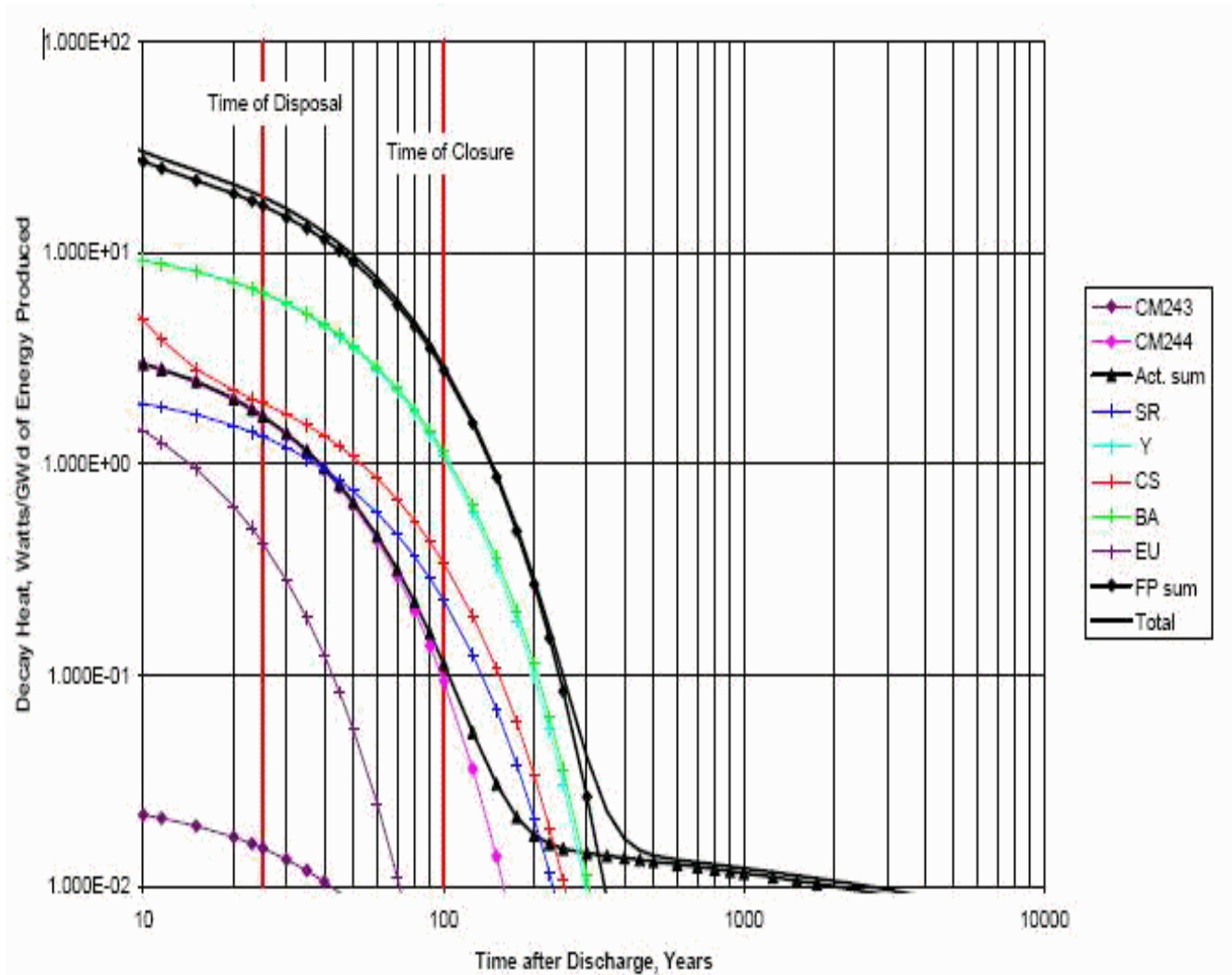


Fig. //A2// Process waste decay heat without Pu and Am [Wigeland, 2006]

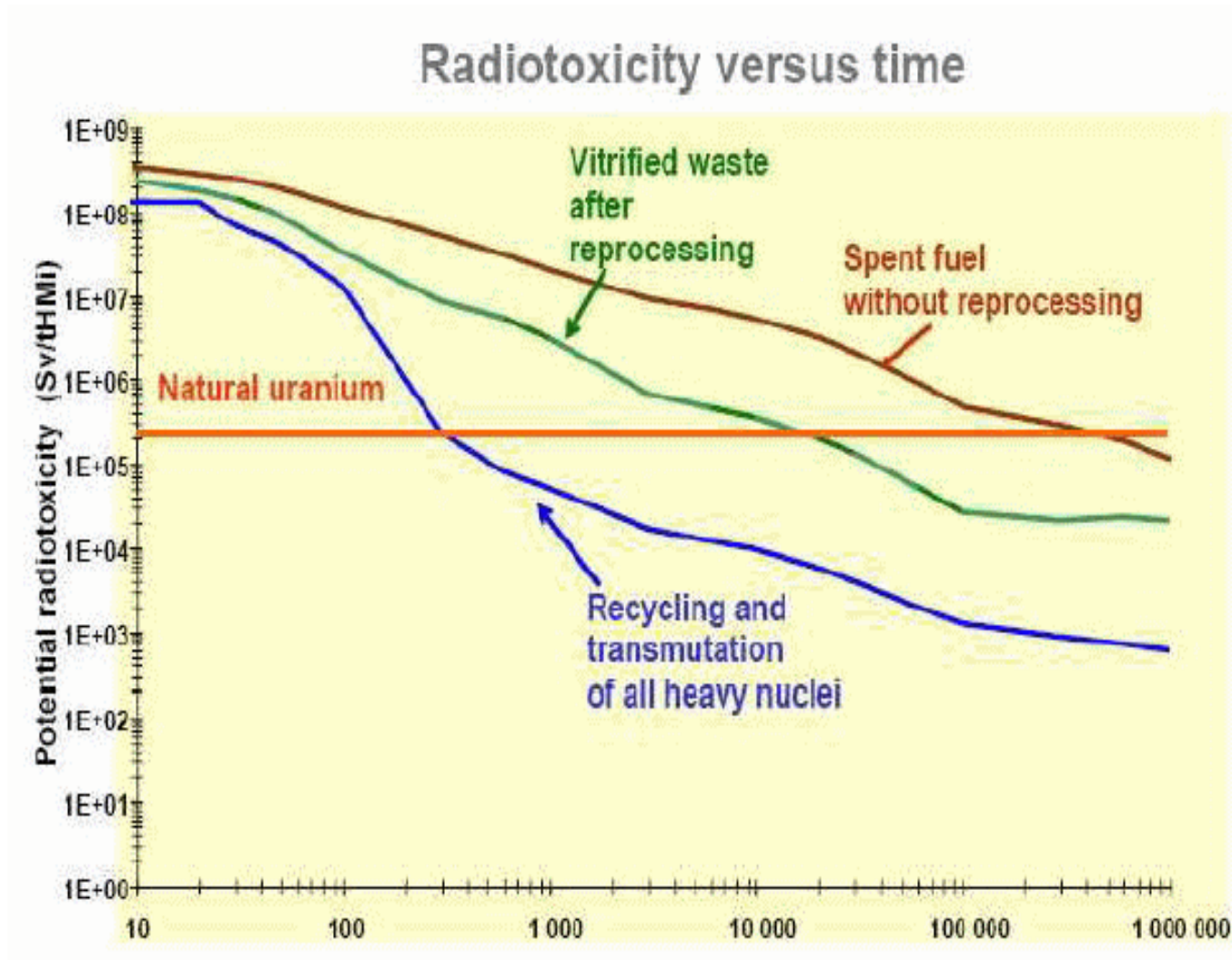


Fig. //B1// Effect of recycling and transmuted TRU elements on radiotoxicity of waste from SNF (Vernaz, 2006)