Outline

• HIFAR Introduction
• Expectations
• Operational Challenges
HIFAR

• 10 MW
• First criticality on 26\textsuperscript{th} January 1958
• Used for
  - Industrial & medical isotope production
  - Neutron scattering
  - Silicon doping
Expectations

• OPAL planned to be operational by late 2006
• Safe and reliable operation of HIFAR
• HIFAR and OPAL dual operation to ensure continuous supply of reactor based services
• Sufficient staffing and resources for dual operation
• Maintain TGA pharmaceutical licence
• HIFAR operation until December 2006
• Smooth transition from HIFAR to OPAL
Challenges

- Staffing
- HIFAR’s ageing plant
- Fuel supply
- Regulatory expectations
- Plans for Decommissioning
Staffing
Staffing

- Additional HIFAR operators and support staff recruited
- Changes to shift rostering
- Share support staff between HIFAR and OPAL
- Utilise ANSTO personnel from other divisions
HIFAR Plant

• 2006 is HIFAR’s 49th year of operation
• 35 day operating cycle
• Scheduled shutdown time increased from 3.5 days per cycle to 4.5 days per cycle
• Additional maintenance and measurements for fuel conversion program
• More preventative & predictive maintenance
• Increased safety culture awareness
Fuel Supplies

• Original fuel assemblies manufactured by UKAEA (93%, 80% & 60% U235)
• RISO, Denmark – 19.75% U235
• Safety category 1 project to convert HIFAR to Low Enriched Uranium (LEU) silicide fuel
• Currently over 50% converted to LEU fuel
Fuel Supplies

- Expectation to operate until December 2006
- Additional LEU Fuel required
- Contract signed with CERCA, France to supply additional fuel assemblies
- Enriched uranium of US Origin
- US FRRSNF acceptance program
Regulatory Expectations

• Continuing Safe operation compliant with Safety Analysis and Operating Limits and Conditions
• Notification of changes made to plant or operating practices
HIFAR Decommissioning

Three Options

• Short decay period then return to greenfield site
• Remove all activated plant & equipment and maintain as a heritage building or museum
• Remove unactivated plant & equipment and apply a long term care and maintenance program
Conclusion

- Plans are in place for transition of staff from HIFAR to OPAL
- Highlighted awareness of safety culture
- Additional fuel supplies from CERCA