

Figure 2-1 CANDU 6 Reactor and Vault Arrangement - Front Elevation

-

.

Design of CANDU Reactors



Figure 2-2 CANDU 6 Reactor and Vault Arrangement - Side Elevation

Desproof wpd

ſ



Figure 2-3 Detail of Sub-shell, End Shield and Support Assembly

. .

Desproef.wpd



Figure 2-4 Detail of Calandria Tube Joint to End Shield

Proprietary Document

(

}



Figure 2-5 CANDU 6 Fuel Channel Assembly

Proprietary Document

(

Design of CANDU Reactors

)

Desproef.wpd

ť





Proprietary Document



~

Desproof.wpd

Figure 2-7a Cutaway View of Bruce Reactor Assembly

Proprietary Document

Design of CANDU Reactors



Figure 2-7b Cross Section through Bruce Reactor Assembly

• •





Desproof.wpd

.



Figure 2-10 Cross Section through RM Deck

Proprietary Document







Figure 2-12 CANDU 6 Fuelling Machine

٩,



Figure 2-13 CANDU 6 Fueiling Machine Support & Travel

Design of CANDU Reactors

Proprietary Document



1

٠



Proprietary Document

NOTE: Figure is simplified to show only new fuel loading at the "A" end of the reactor and irradiated fuel discharging at the "B" end; however, system is symmetrical, with corresponding discharge and new fuel ports at both ends and may transfer fuel in either direction.

Figure 2-14 CANDU 6 Fuel Handling System Arrangement







Figure 2-16 Reactor Building Elevation Section at Reactor Face (Section S3 on Figure 2-14)

Design of CANDU Reactors



Figure 2-17

Reactor Building Elevation Section through Reactor Centre (Section S1 on Figure 2-14)



Figure 2-18 CANDU 6 - Reactor & Vault Elevation

Proprietary Document

Design of CANDU Reactors



Figure 2-19 CANDU 9 - Reactor & Vault Elevation

. .

Desprocf.wpd



Figure 2-20 Temperature Distribution in CANDU Reactor Structure

Proprietary Document

i.

Proprietary Document end shield end shield lattice tube lattice tube , pressure tube inside calandria tube R R , calandria tube W_e = weight of end fitting $W_{\rm E}$ T = tension due to PHTC pressure acting on closed ends ns at lattice rend shield т $W_{c} =$ S S = support from distributed S S calandria tube weight of fuel, R = support reactions at lattice tube bearings in end shield applied at spacers R coolant & pressure tube



Figure 2-22 Loads Acting on Calandria Tube



Figure 2-23 Loads Acting on Calandria Shell

Desprocf.wpd

ί

Ì



Figure 2-24 Loads Acting on End Shields

Desprocf, wpd

- }



Figure 2-25 Loads Acting on Reactivity Mechanisms Deck (RMD)

(







Desproof.wpd

• •



Figure 2-27 End Shield Dishing due to Different Thermal Expansion of Two Tube Sheets



Proprietary Document

Figure 2-28 Deflected Shape of RM Deck Support Webs due to Thermal Expansion of RMD relative to Vault Concrete