

Imingcipheko Yamandla Enyukliya: Ukujongwa Ncakasane

Olu xwebhu lweenyaniso luphonononga iimpembelelo ezisoloko zingahoywa zamandla enyukliya kokusingqongileyo, ukhuseleko loluntu, kunye nezizukulwana ezizayo, kwaye nokuba kutheni amaqela oluntu esithi amandla enyukliya akanakuba yinxalenye yenguqu yamandla anobulungisa.

Izimali, izixhobo nemiqobo yexesha

Ukwakhiwa kwemizi-mveliso yamandla enyukliya kudume kakubi ngeendleko eziphezulu, ukugqitha ngaphaya kweendleko ebezicetyiwe kunye nokulibaziseka. Kuqikelelwa ukuba kuthatha malunga neminyaka eyi-10 kunye ne-R350bn ukwakho umzi-mveliso wenyukliya owenza umbane we-2500MW. Izivumelwano ezingathandekiyo, ukungena ematyaleni okwakha amaziko enyukliya, nenkqubo ebiza imali eninzi yokuwavala kusenokwenza izinto zibe nzima kwizizukulwana ezizayo. Ukukhetha amandla enyukliya kunokurhintyela uMzantsi Afrika kumandla akudala nangakhuselekanga, ngelixa kukho iindlela ezingcono, ezikhuselekileyo nezingabizi kakhulu zamandla ezikhoyo.



Iingozi Zenyukliya

Iingozi zexesha elidlulileyo e-Three Mile Island (1979), Chernobyl (1986) kunye nase-Fukushima Daiichi (2011) zibonisa iziphumo eziyingozi zokunyibilika kwe-reactor, ekhokelele kungcoliseko olubanzi, ukufuduka, kunye nomonakalo ongapheliyo kokusingqongileyo. Ukusebenza kwamanyathelo amatsha okhuseleko kunye noyilo lwe-reactor kuhlala kungaqinisekanga ubukhulu becala, kwaye amaqumrhu alawulayo iba ngawo ekuye kufuneke anyanzelise izikhuselo.



Ubugcisa Obufanayo

Ubugcisa obufanayo obusetyenziswa kumandla enyukliya bunokusetyenziswa gwenxa kuphuhliso lwezixhobo zenyukliya, nto leyo ephakamisa inkxalabo yokhuseleko lwehlabathi.



Imingcipheko ebalulekileyo yenyukliya ayinakungahoywa xa kujongwa iintlekele zamandla okanye kusiliwa nokutshintsha kwemozulu. Ukwenza utyalo-mali kwezinye iindlela ezicocekileyo nezizinzileyo kuya kuba negalelo kwikamva elikhuselekileyo, elisempilweni, nelinoxanduva kokusingqongileyo. Siyakukhuthaza ukuba uxhase inguqu enobulungisa kwizisombululo zamandla acocekileyo kwaye uphakamise ulwazi ngeempembelelo kunye neendleko zamandla enyukliya.

1. Eskom Holdings SOC Ltd. (2023). Eskom. <https://www.eskom.co.za/>

2. Ingerop. (2013). Study of the Cost of Nuclear Power. Department of Energy RSA.

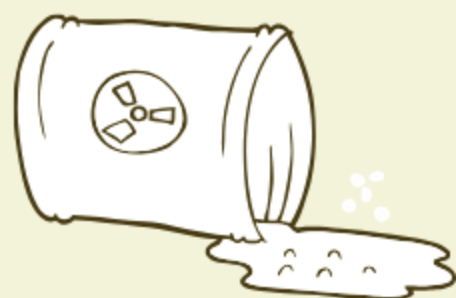
*** Jonga inxalenye 2 kunye ne-3 ngolwazi oluthe vetshe kunye neembono zenkolo.

Imingcipheko Yamandla Enyukliya: Ukujongwa Ngokusondeleyo

Amandla enyukliya ayakhuthazwa njengenxalenye yenguqu yamandla enobulungisa, ngelixa impembelelo kokusingqongileyo nokhuseleko loluntu, kwaye nothwalo kwizizukulwana ezizayo awuhoywa.

Ukungcola Kwenyukliya

Ukungcola okuvela kwizixhobo zenyukliya kuyingozi kangamawaka eminyaka kwaye nokuchanabeka kancinci kunokubangela umhlaza, utshintsho lwemfuzo, kunye neengxaki zokuzala. Uluntu olukufutshane nemizi-mveliso zenyukliya kunye neendawo zokugcina ilindle lusemngciphekweni weengozi zenyukliya okanye ukungcoliseka kwamanzi aphantsi komhlaba. Isikhululo soMbane i-Koeberg sisodwa sivelisa ngaphezulu kweetoni ezingama-32 zamafutha asetyenzisiweyo ngonyaka. EVAalputs (ekuMntla Koloni) kucetywa ukuba kubekho Indawo Yokugcina engaphezu komhlaba ukuze igcine ukungcola oluwinqanaba eliphezulu, nto leyo eyongezelela kwiingozi kokusingqongileyo nempilo yezizukulwana ezizayo.



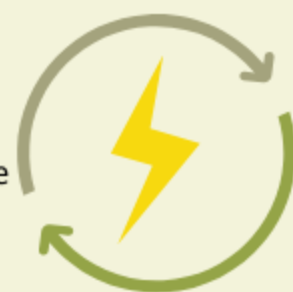
Ukusetyenziswa Kwamanzi

Izixhobo zenyukliya zisebenzisa i-1,500 ukuya kuma-2,700 yeelitha zamanzi nge-MWh nganye yombane oveliswayo kwaye kuqikelelwa ukuba i-Koeberg isebenzisa i-1370 yeekhilolitha zamanzi okusela ngosuku kwilizwe elinonqongophalo lwamanzi. I-Koeberg ikwasebenzisa iilitha ezingama-22 eebhiliyoni zamanzi olwandle ngonyaka ukupholisa ii-condenser zayo. Ungcoliseko lobushushu elwandle lunokuba nefuthe kwizilwanyana zasendle zasekuhlaleni kunye nenkqubo yendalo yaselwandle.



Ukwahlukana Kwamandla

Utyalo-mali kumandla enyukliya lungaphambukisa ubutyebi bemali obuvela kwizinto ezahlukeneyo, ezikhawulezayo ukuzifaka, izisombululo zamandla ezifikelekayo nezibhetyebhetye, ezifana nemithombo ehla ziyekayo efana nelanga, umoya, namandla ombane ophehlwa ngamanzi. Ugxininiso kumandla enyukliya lunokuthintela uphuhliso lwenkqubo yamandla ekwazi ukuxhathisa iingxaki kunye nenkqubo engalawulwa kwindawo enye.



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1. Eskom Holdings SOC Ltd. (2023). Eskom. <https://www.eskom.co.za/>
2. Kate Green. (2019). [Nuclear power and its water consumption secrets](#), Monarch Partnership.
3. Yolandi Groenewald. (2018). [Eskom responds to water crisis with Koeberg desalination plant](#), News24 Business

*** Jonga inxalenye 1 kunye ne-3 ngolwazi oluthe vetshe kunye neembono zenkolo.

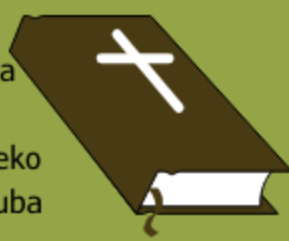
I-SAFCEI ngumbutho wokusingqongileyo osebenza nabantu abanokholo kwimozulu kunye ne-eco-justice, kunye nokuphila okuzinzileyo. Iphulo lethu lokuchasa inyukliya lifuna amandla afikelekayo ngokwezimali, afikelekayo kwaye azinzileyo kumntu wonke.



Imingcipheko Yamandla Enyukliya: Iimbono Zokholo kunye neNkxalabo Zokuziphatha

Inkolo YamaKrestu

- Iinkxalabo ezijikeleze amandla enyukliya zikhokelele ukuba abaphengululi abangamaKristu ukuba babuze ukuba semthethweni kwayo ngokokuziphatha, beqwalasela ubugosa bendalo kunye nokugcinwa kwesidima.
- "Andinakusebenzisa amandla enyukliya de kubekho ukhuseleko olupheleleyo. Akukho khuseleko lwaneleyo lokuqinisekisa ukuba akusayi kubakho ntlekele." - Pope Francis



Inkolo YamaSilamsi

- Umthetho-siseko wokuphepha ukwenzakaliswa (haram) ubethelela iimbono zamaSilamsi kumandla enyukliya. Inkolo yamaSilamsi iyaqonda ukuba iteknoloji enokwenza iingozi eziyintlekele kufuneka zijongwe ngononophelo.
- "Asizifuni ezi zinto ngenxa yethu kunye nenkolo yethu kwaye ngenxa yokuba isizathu sisixelela ukuba singenzi njalo." - Ali Khamenai (i-fatwa echasene nenyukliya e-Iran)



Inkolo YamaJuda

- Iingqwalasela zeenqobo ezisesikweni malunga nemingcipheko kubomi kunye nokusingqongileyo ezibangelwa lilindle lenyukliya ne-radioactive zihambelana nemithetho-siseko yobuJewish yoxanduva lwentlalo.
- "Khetha ubomi, ukuze uphile, wena nenzala yakho" (Duteronomi 30:20)



Inkolo YamaHindu

- Abachasi bamaHindu bagxininisa iingozi ezinokubakho kwimpilo yabantu, kokusingqongileyo, nobungcwele bobomi.
- "Ubungcwele abunakufumaneka kwiifom okanye kwiinkolelo, kodwa ekuhambeni ngaphaya kwethuku lethu lokuzigcina." - Sadhguru



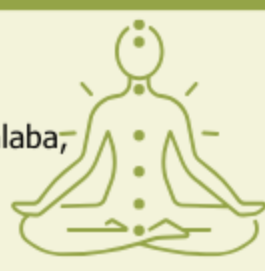
Inkolo YobuBhudda

- UbuBhuda bubeka phambili ukungabikho kobundlobongela kunye nokuphila kakuhle kwabo bonke abantu kunye novelwano kunye nokungonakali.
- "Kuzo zonke iingozi esijongene nazo, ukusuka kwisiphithiphithi semozulu ukuya kwimfazwe zenyukliya, akukho nanye inkulu njengokufa kwempendulo yethu." - Joanna Macy (itshantliziyo lezendalo)



Iinkolo Zemveli Neenkolo Ezisekelwe Kwindalo

- Abantu Bomthonyama bazigqala njengenye yezinto zendalo engcwele ezimele ziphelele kwizizukulwana ezizayo.
- Iinkokeli zomthonyama zikubeka phambili ukukhuselwa komhlaba, amanzi kunye nobomi.



I-Quaker

- AmaQuaker ayakuqonda ukudityaniswa kobomi bonke kunye nemfuneko yokusebenzela uxolo nobulungisa. Iingozi ezisenokubakho zenyukliya nokwanda kwezixhobo kuphakamisa inkxalabo yokuziphatha ngokufak' isandla kugonyamelo nokubandezeleka.



Inkolo YamaBahaha'i

- Inkolo yamaBahaha'i ikhuthaza umanyano, ubulungisa nozinzo. Iinkxalabo malunga namandla enyukliya zilungelelaniswa nemithetho-siseko yokholo yentsebenziswano yehlabathi kunye nolawulo lokusingqongileyo.



Iingxaki zeenqobo ezisesikweni ezivezwa ngamandla enyukliya azingqinelani neenqobo zokholo kwaye amaxabiso aphezulu aphakamisa imibuzo malunga nobulumko boqoqosho botyalo-mali kumandla enyukliya, ngakumbi kwimeko yamandla eguquka ngokukhawuleza eqhutywa bubuchwepheshe obunokuhlaziya.

*** Jonga inxalenye 1 kunye ne-2 ukujonga ngokusondeleyo imingcipheko yamandla enyukliya.

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