CWSF 2005 - Vancouver, British Columbia

Spencer Hughes

Too Hot to Handle?

Division: Engineering & Computing Sciences
Category: Senior
Region: Timmins
City: South Porcupine, ON
School: Timmins High & Vocational School
Abstract: Experiments evaluated the use of plasma tools to remotely drill and seal holes in batholith rock. A passive heat exchanger and Stirling engine electrical generation system transforms energy from holes filled with water and solid nuclear waste. 45 MWh of environmentally sustainable electricity result from storage of 1.5 million spent CANDU fuel bundles.

Awards	Value
AECL Award for Excellence in Science - Senior Sponsor: Atomic Energy of Canada Ltd.	$1 000
Natural Resources Canada (NRCan) Office of Energy Efficiency Award Senior Sponsor: Natural Resources Canada (NRCan) Office of Energy Efficiency	$500
Canadian Commission for UNESCO - Science for Peace and Development (MILSET ESI) Award Sponsor: Canadian Commission for UNESCO	$5 000
The Manning Innovation Achievement Award Sponsor: Ernest C. Manning Awards Foundation	$500
Renewable Energy Award - Senior Sponsor: Ontario Power Generation	$1 000
Total	$8 000

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