

OLYMPIC DAM EXPANSION EIS

EXPORTING CONCENTRATE

As part of BHP Billiton's proposal to expand its Olympic Dam mining operation in South Australia, the company is seeking South Australian, Northern Territory and Australian government approval to export copper concentrate containing uranium, gold and silver (concentrate) to China via the Port of Darwin.

Once at full production, up to 1.6 million tonnes of concentrate would be shipped in the form of a black powder with a uranium content of up to 2,000 parts per million (compared with up to 990,000 parts per million for the uranium oxide already shipped through the Port of Darwin). Currently, BHP Billiton ships approximately 4,000 tonnes of uranium oxide each year.

The concentrate would be shipped in accordance with Australian and international law. BHP Billiton will comply with the legal requirements at the port of destination, following which, the county of destination will become responsible for the material. BHP Billiton is very experienced in shipping concentrates between its mines and other countries and has been shipping uranium oxide from Olympic Dam without incident for more than 20 years.

Safety

The company has comprehensive product stewardship procedures and policies to ensure the safe handling of product throughout the transport chain.



Concentrate would be carried via a non-stop route in large, custom designed vessels from Darwin to an offload port in China. These 60,000 tonne Panamax-class vessels would be operated by BHP Billiton.

Radiation exposures would be inherently low given the low concentration of uranium, but nevertheless these ships would be fitted with special radiation and air quality monitoring equipment. The vessels, along with the loading and unloading equipment, would be designed and operated to minimise crew exposure to radiation. Loading and unloading would be closely managed to prevent the release of dust into the environment.

Australian policy and safeguards

Australian government policy allows the sale of uranium for peaceful purposes only.



An example of the Panamax-class style vessels that would be operated by BHP Billiton

In accordance with this policy, the Australian Government will only allow Australian uranium to be used in countries that have:

- signed the Nuclear Non-Proliferation Treaty, and
- implemented a Bilateral Safeguards Agreement with Australia.

These bilateral safeguards agreements impose conditions to ensure that Australian uranium is used exclusively for peaceful purposes (i.e. it is not diverted for the production of nuclear weapons, other nuclear explosive devices, or for any other military purpose), is accounted for in full and appropriate standards of physical protection are implemented. Australia has a bilateral nuclear material transfer agreement with China.

Government regulation

The Australian Maritime Safety Agency is responsible for approving the concentrate shipping plan and granting the operator a license to carry radioactive material in the dedicated vessels. This shipping plan would outline the processes and systems to ensure that radioactive material is transported safely and in accordance with relevant Australian and international laws.

The Commonwealth Department of Resources, Energy and Tourism is responsible for issuing an export licence having satisfied itself that all applicable laws pertaining to handling, transport and non-proliferation would be met.

The Australian Safeguards and Non-Proliferation Office would determine the accounting arrangements and security measures to be implemented by the Company for its concentrate transportation overseas.

In addition, BHP Billiton would have contractual controls in place, as well as the Company's Uranium Stewardship Program, to ensure the application of leading international practice in nuclear safety and security at each stage of the nuclear fuel cycle.