

ESI SCHOLER INCINERATION

Short List of Recent incineration projects undertaken:

St Barbara Ltd. (Simberi Gold mine – Simberi Island, PNG)

Designed to destroy liquid/ sludge waste hydrocarbons over a 24hr. operation as well as solid wastes such as liner bags with sludge residues. This unit is containerized and will be shipped and commissioned in early 2021. Delays due to Covid19.

B2Gold (Fekola Gold Mine site) – Mali, West Africa

Design and manufacture a containerized incinerator to handle cyanide boxes and bulker bag liners for gold processing as well as other hazardous on-site wastes.

The loading system includes our trolley loader and de-ashing arrangement. This unit was virtual commissioned (due to Covid19) and now in full operation.

Oil Search Limited – Papua New Guinea

Design and manufacture of transportable containerized incinerator for drilling site applications to dispose of hazardous wastes.

Syama Gold Mine – Mali, West Africa

Design and manufacture of specialized incinerator to handle cyanide boxes and bulker bag liners for gold mine as well as other hazardous wastes on-site.

Oil Search Limited – Iagifu ridge, Papua New Guinea

Design of large hazardous waste incinerator to treat all manner of hazardous wastes, waste oils and greases, tires, chemicals and medical waste. This unit designed with two large overhead mounted apron feeders each 2m wide x 6m long for loose bulk solid wastes, front mounted fork system for loading bins, drums and containerized wastes, and liquid waste handling system feeding directly into secondary chamber.

Hazardous waste incinerator to handle cyanide boxes and contaminated bulker bags, Blackjack and medical waste. (Similar application to Lane Xang Minerals in Laos)

Exxon Mobil –Hides, Papua New Guinea

Design and manufacture of two large incinerators to handle hazardous waste materials emanating from construction of LNG plant in New Guinea Southern Highlands.

Hyundai – Laem Chabang, Thailand

Design and supply recuperative thermal oxidizer for paint drying plant.

Lane Xang Minerals Limited – Sepon mine site, PDR Laos

Design of specialized incinerator to handle hazardous wastes such as cyanide contaminated packing boxes and plastic liners, waste oils and grease, chemicals and general waste.

This unit required a special configuration so that the boxes could be fed whole to the incinerator. A bogey car system was developed so that the large boxes could be fed by forklift onto the bogey cars outside the incinerator unit and then inserted into the primary chamber.

The unit has three programmable cycles to deal with high plastic content wastes, large drums full of grease and general waste.

This is a unique solution and the only one of its type.

Barwon Water – Geelong, Australia

Design & Supply of 2 recuperative thermal oxidizers to destroy fumes from sewage sludge drying plant.

Bangkok Metropolitan Authority (BMA) – Bangkok, Thailand

Redesign, refurbishment and upgrading of infectious medical waste facility. BMA had 2 units each operating at 5 ton per day of infectious medical waste. The problem was high emissions of black smoke, CO at over 820ppm and dioxin as well as high gas consumption in the secondary chamber. **(Emission Test Results available)**

The units' design was totally revised. This included:

A new incremental feeding system whereby 37.5kg of waste was fed every 3 minutes instead of 166kg every 20 minutes.

Modification of hearth to provide under fire air and starved air combustion

Extension of secondary chamber to increase residence time to over 1.5 seconds

Removal of wet scrubber

As a result of the revisions:

Unit capacity was increased to 7.5 ton per day each

Emission of black smoke eliminated

CO reduced to less than 4ppm

Dioxin emission from stack undetected

Fuel consumption reduced to 50% of previous

Nestle Coffee Products – Ivory Coast and Ghana, Africa

Supply of special purpose incinerators mainly to destroy aluminum foil plastic lined sachets. These are out of specification sachets which Nestle did not want to dump due to possibility of counterfeit product supplied on the market.

Thai Petrochemical Industries Co., Ltd – Rayong refinery, Thailand

Supply of incinerator to destroy high plastic content wastes from production as well as general plant wastes. **(Emission Test Results available)**

Total E&P PNG – Herd Bas Camp, Papua New Guinea

Supply of containerized incinerator for mine site industrial & camp waste.

Australian Antarctic Division – Davis & Casey Stations, Antarctica

Supply of incinerators for waste destruction in isolated & restricted location.

Apache Energy – Varanus Island, Western Australia

Supply of batch incinerator for industrial & camp mess waste on oil & gas island site.

RAAF Base, Richmond – Sydney, New South Wales

Supply of incinerator for quarantine waste from incoming overseas aircraft.

Darwin Port Authority – Darwin, Northern Territory

Supply of batch loading incinerator for quarantine waste from ships

Beer Thai (1999) Co., Ltd. – Ayutthaya brewery, Thailand

Supply of incinerator to destroy high plastic content packaging wastes as well as reclaimed bottle labels from recycled bottles washing plant.

Chevron Oil – Papua New Guinea

Supply of special purpose incinerator to destroy contaminated slurry and mud from oil drilling operation.

Thiess Services Limited – Adelaide, Australia

Supply of thermal oxidizer to treat fumes from contaminated soil recovery site.

Sara Lee Foods – Bangkok, Thailand

Design and supply of recuperative thermal oxidizer to destroy fumes from coffee roasting process.

TPCC – Rayong, Thailand

Supply of incinerator for sewage sludge disposal from water treatment plant

Special expertise developed by ESI Scholer:

Burning high calorific value (HCV) (plastic, tires, hydrocarbons) and low LCV wastes (general, organic, food, etc) through our incineration process.