

# 3Ts

3Ts INTERNATIONAL LTD PLAYS A MAJOR PART IN REDUCING LANDFILL REQUIREMENTS AT AN OIL EXPLORATION LOGISTICS CENTER IN IRAN



**RD700 Pyrolytic Incinerator with Auto-loading**

*BIK Logistics Base is situated at Bandar Imam Khomeini Port located in the Iranian Khomeini Province, north of the Persian Gulf. The base provides logistical support for major on & off shore oil and Gas drilling operations. Iranian Oilfield Services Company (IOSC) owns and operates the facility. IOSC covers upstream activities in the Oil & Gas sector. IOSC main customer being Shell Exploration B.V.*

### WASTE MANAGEMENT ENHANCEMENT

In fulfilment to HS&E, as well as clients' commitment, IOSC transfers wastes generated at rig sites to the base. Generated wastes include chemicals, waste oils and domestic refuse.

Once at base, wastes are safely incinerated into sterile white ash ready for landfill using 3Ts RD700 Pyrolytic Incinerator.

3Ts RD700 is a state of the art pyrolytic incinerator equipped with an automated waste loading system for speed and ease of operations.

The system also features a liquid injection facility for chemicals, waste oil and contaminated water.

This case study covers the first six months from the date of commissioning during June 2002 till December 2002. A new version of this case study may be available when IOSC publishes the 2003 Annual Report from their waste management department.

### RAW DATA

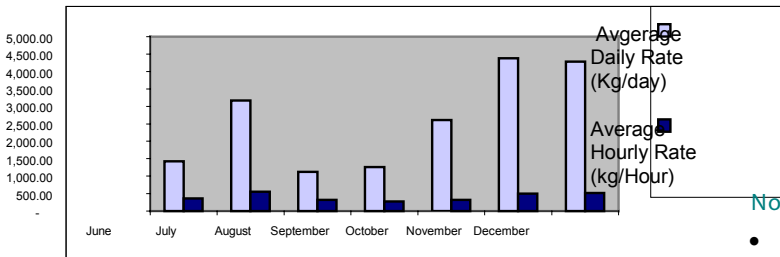
	Days of Operation	Loading Cycle (Hours)	Burning Cycle (Hours)	Total Incinerated Waste (Tonne)	Generated Clean Ash (Tonne)
June	20	78.0	138.0	28.5	2.0
July	10	57.4	87.4	31.7	2.2
August	5	17.5	32.5	31.7	0.4
September	21	97.0	160.0	26.4	1.9
October	21	173.5	236.5	54.7	3.8
November	23	200.5	269.5	100.7	7.0
December	22	181.5	247.5	94.2	6.6
<b>Total</b>	122	805.4	1,171.4	368.0	23.8

Data Source- IOSC 2002 Annual Report

Credit- Mr. Ali Khosravi, Mr. Alireza Saadati & Mr. Alfie D'Souza



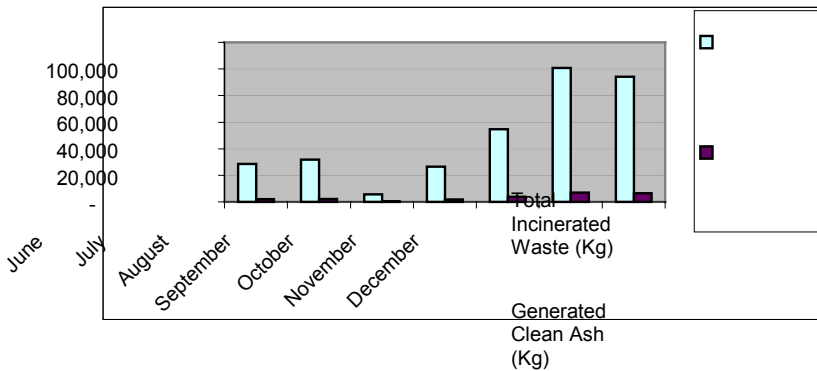
	Total Hours/Month	Average Hours per Day	Average Daily Rate (Kg/day)	Average Hourly Rate (kg/Hour)	Clean Ash (Weight % of Waste)
June	216	10.80	1,425.10	365.41	7.00%
July	145	14.48	3,170.80	552.40	7.00%
August	50	10.00	1,120.00	320.00	7.02%
September	257	12.24	1,258.57	272.47	7.00%
October	410	19.52	2,605.95	315.42	6.87%
November	470	20.43	4,376.52	502.04	6.98%
December	429	19.50	4,283.64	519.23	7.00%
Total	282	15.28	2,605.80	406.71	6.98%



Notes

- RD700 was not operational during most of July & August due to technical problems. Bureaucratic delays in issuing visas to technical staff as well as stringent import regulations of spares prevented technical support from accessing the site in the speed required.
- Wastes generated during this period were stored for incineration at later times.

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Conclusions

- Landfill accepted 23.8 Tons of sterile ash instead of 368.0 Tons of waste, an average of 7%.
- During November (highest average hourly rate), the RD700 was used to 78.8% capacity of 700 kg/hour Average Hourly Rate.

