

NEWS RELEASE



ERG completes acid fume treatment project in Central Asia

Horsham, UK based ERG (Air Pollution Control) Ltd has completed a £300k project to supply an acid fume scrubber to Kazakhstan. The client is the petrochemical giant, Tengizchevroil, which is a joint venture between Chevron, Exxon Mobil, and local Kazakh operators KazMunaiGas and LukArco.

The client needed the scrubber to treat hydrochloric acid (HCl) fumes which are given off from a 50m³ storage tank containing concentrated HCl. The normal operating temperature range of the fumes is 20oC to 44oC, but Tengizchevroil specified an operating range for the fume scrubber between -40oC to 75oC to allow for extreme Kazakh weather conditions as well as an operating margin. To add to the technical challenge, the client also specified that the scrubber should be capable of handling pressures up to 6 atmospheres.

Under normal operation, the concentration of HCl in the extracted fumes is 130,000 ppm, but this can rise to in excess of 500,000 ppm at the extreme operating limits. The ERG designed scrubber reduces the HCl content down to less than 2ppm – an impressive extraction efficiency of more than 99.99%.

The key part of the scrubbing system is a packed tower scrubber. This uses water as a scrubbing liquor to capture the displaced HCl fumes that are expelled as the storage tank is filled.

The scrubber is mounted on a 3.4m³ recirculation tank, and along with a recirculation pump and associated pipe-work, the complete system is supplied on a 304L stainless steel skid. The pump re-circulates the scrub liquor water from the tank to the packed tower. Mains water is supplied to the recirculation tank to make up evaporation losses. To monitor the build up of HCl in the scrubbing liquor, samples are taken by means of a safe sampling valve that can be linked to a conductivity or pH instrument. The unit also allows ambient air to be drawn into the tank as the HCl is drawn off for use.

The cleaned fumes containing <2ppm HCl pass through a pad type demister before being discharged to atmosphere.

The unit was built in Yorkshire and left the UK in Oct on its 4,000+ mile 6-week overland journey across Europe and Russia to the refinery site at Atyrau on the Caspian Sea.

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370 words

Attachment:

Photo of the scrubber unit installed on site in Kazakhstan.



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About ERG (Air Pollution Control) Ltd.

ERG (Air Pollution Control) is a leading supplier of air pollution control systems and services with a 30 + year track record, providing turnkey tailor made solutions that are optimised to give the best technical solution for the lowest capital and running cost.

ERG is based in Horsham, West Sussex, near Gatwick airport with satellite offices around the UK, a branch office in the Middle East, and a global network of V-tex[®] technology licensees.

ERG specialises in odour control and gas conditioning systems; V-tex[®] scrubbing, stripping and condensing technology; soluble contamination capture and recovery; particulate removal systems; hazardous waste flue gas cleaning systems, and VOC contamination abatement.