

Discussion with refinery senior management about hydrocarbon release response (2007)

I was working at a refinery in Eastern Africa, advising on maintenance and safety management. The country was subject to a US embargo and most of their technical advice came from Chinese engineers. The refinery had been a joint venture (JV) between the Chinese and the African country's government. The Chinese had built the refinery, and had operated it for the first seven years. It was now being handed over to the Africans.

My job was to provide advice to the Africans during the handover.

It is difficult to know where to start - there were so many things wrong.

- The Chinese didn't speak the local language, and the Africans didn't speak Chinese, so they communicated in poor English.
- Actually, most of the time they didn't communicate at all! There were some meeting rooms full of Chinese, and other meeting rooms full of Africans, but they didn't seem to mix, so I never really understood how they communicated.
- There were essentially two complete teams of staff at the refinery – Chinese and African. Because it was a government-backed project, all of the Africans were local. However, this was a poor country with no background in high-hazard industries, and little heavy engineering. Hence, the backgrounds – even of senior African managers – were mostly from sugar processing.
- Even the two senior management teams – Chinese and African – seldom seemed to speak. I got the impression they didn't like or trust each other.

I often had lunch with the African managers. One day I arrived late and they were having an excited discussion about what they would do if there was a release of pressurised hydrocarbon gas. The question they were discussing was: If you could see that there was a large cloud of vapour, could you do anything about it such as spraying hoses on it?

I gave my view that the only thing you could do was (a) identify which direction was upwind, and (b) run as fast and as far upwind as you were able. It seemed they – the managers of a refinery – were unaware of the risks of vapour cloud explosions.

One day when I was at the refinery there was a small fire on the cracker. It was treated as a commonplace occurrence – no-one seemed unduly concerned.

Moral: Same as item 4 – it is unreasonable to expect the highest safety standards and safety awareness in developing countries, but safety training must be a priority. Also, in multinational projects, be aware of the problems that can be caused by cultural differences.