Sunday, June 1, 2014, 00:01 by Alan Deidun

Rock buns anyone?

Competition for space in the Grand Harbour is cut-throat, and this has led to a cement silo rubbing shoulders with a grain silo and possible contamination of the food chain.

One would have thought there are few issues that capture the public's attention more than those concerning public health and possible contamination of the food chain. And yet, this country seems to buck the trend when it comes to the environment, with very few ripples being generated in the media after the story of the new cement silo at Corradino (more precisely on Laboratory Wharf in Grand Harbour) which rubs shoulders with (less than 10 metres away from) the grain silo, was exposed by Flimkien Għal Ambjent Aħjar (FAA) last September.

Former Malta Environment and Planning Authority CEO Ian Stafrace decided the cement silo operated at Corradino by UC Ltd did not need to apply for planning permission, despite such a need being enshrined in the Environment and Development Planning Act. This was underscored in an official complaint sent by FAA to Mepa last January and in a subsequent letter to Labour MP Michael Farrugia, who at the time was Parliamentary Secretary responsible for Mepa.

Towards the end of last year Mepa requested two risk assessments, one commissioned by the cement silo operators (authored by Dr Ramiro Cali-Corleo) and one commissioned by the operators of the Kordin Grain Terminal (co-authored by Dr Julian Mamo and Dr John Paul Cauchi). Both reports, albeit to varying degrees, did not completely discount the risk that minute particles of cement could contaminate the grain being handled close by. In fact, the report commissioned by the cement silo operators stated: "It is unlikely that this silo operation will be completely free from all fugitive emissions and so the possibility that the grain being handled nearby will be subject to a level of contamination from cement dust remains present even following the application of best practices."

Dr Cali-Corleo's concerns are partly fuelled by the fact that the grain silo is located east of the cement silo (and thus downwind from the cement unloading and storing operations, considering that prevailing winds in this part of the island come from the northwest). This means that particulate matter PM 10 and PM 2.5 cement dust particles "that escaped days before may deposit on grain being transferred days later".

Although the report underlined the fact that the direct health hazard to humans is minimal if best practices are endorsed, it still advised caution since the emissions, although in minute quantities, will be generated each operational day throughout the year, with settled dust being thrown back in the air due to constant vehicular movement and human activity. In view of the minute proportions of cement dust, such particles are not affected all that much by gravity and so remain suspended in the air for prolonged periods of time.

The situation becomes even more sobering when one considers that the air in this area already suffers from high levels of PM 10 and PM 2.5 dust. In fact, the air quality report for the area states that PM 10 levels exceeded permitted thresholds on six of the 24 days monitored, while PM 2.5 levels reached but did not exceed the limits on five monitored days.

Those dismissing all this fuss about cement dust may wish to note that the chemical composition of cement basically consists of a mixture of calcareous material (limestone, chalk) and argillaceous material (shale, clay). The latter contains trace amounts of potentially hazardous chemicals, including heavy metals cadmium, nickel, chromium and lead, besides crystalline silica, fly ash and the irritant calcium oxide. Concerns about 'fugitive' (airborne) cement dust revolve around its fineness and alkaline irritant nature, which might result in a higher risk of respiratory tract damage.

According to the Codex Alimentarius (International Food Standards issued by the World Health Organisation), specifically the code of conduct for the reduction of contamination of food from smoking and direct drying processes (CAC/RCP 68-2009 – available online at file:///D:/ Desktop/CXP_068e.pdf "Sun drying of foodstuffs should not take place near industrial point sources of combustion of gas, such as roads with heavy traffic, incinerators, coal-fired power stations, cement works etc., or in the immediate proximity of roads with intense traffic. Contamination from drying in such places is expected to be a special problem for foodstuffs with a large surface area such as spices.

The issuing of the environmental permit for the cement silo by the Mepa board, despite the very tangible risk of food contamination, raises eyebrows

"However, covered dryers may protect foodstuffs from industrial sources to some extent." The analogy between the sample foodstuff used in this passage – spices – and grains is considerable since both present a large surface area.

Earlier this year, once the fully-enclosed cement silo was completed, on the back of the development permission waiver issued by Mepa in October 2012, the same authority, now with a partly different team of foot soldiers and fuelled by different motivations, sought to block the first consignment of cement to the silo, only to be frustrated in the law courts by the cement silo operators who paraded the green light Mepa had granted them earlier on.

It is ironic and, to a certain extent, understandable, that Mepa allowed the completion of the cement silo even in the absence of a formal development permit out of fear of being sued in view of the waiver that had been granted previously.

Mepa has managed to force all the operators of the shipyard, grain and cement silos to submit an application for an environmental permit in a bid to green their operations. Cynics might view this as a tokenism but, in August 2013, Mepa's CEO specifically demanded the operator of the cement silo to apply for an environmental permit to avoid facing possible closure of its operations.

In view of the significant environmental impact of the current cement-unloading operations, which, in the Mepa representative's own words generated "a huge plume" every time there was unloading, and in view of the grain silo's archaic conveyer belt system, observers believe that hefty investment by both operators will be needed to be eventually bring their systems up to scratch.

So be it... the environmental and public health risks at stake are high enough to warrant such a long-overdue investment.

The issuing of the environmental permit for the cement silo by the Mepa board, despite the very tangible risk of food contamination as a result of the ongoing operations, raises eyebrows.

The upshot of this sorry story is that, if it hadn't been for the gritty determination of Antonio Anastasi and his colleagues at FAA and other collaborating NGOs such as Friends of the Earth, no concrete (pardon the pun) action would have been taken by authorities concerning the case.