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Hands Lane Rush Co Dublin 1/2/2012 SUB

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Mr Brian Meeney Inspector Waste Licensing Section EPA Johnstown Castle Estate Co Wexford Ref: W0 129-03 MFHI

Ref: W0 129-03 MEHL proposed Hazardous Waste Facility, Hollywood, Naul, Co Dublin

Subject: Evidence of Iron Pyrite in Soils and Rock Dear Mr Meeney,

I refer to the MEHLAnnual Environmental Reports for years 2008, 2009 and 2010 on EPA website ref WO 129- 02 for the current MEHL landfill facility. In particular please note the sections on "Monitoring and Measurement" and the Quarterly Monitoring Parameters in groundwater boreholes.

Iron, pH and Sulphate breached Drinking Water Limit values in some cases, which indicates that Iron Pyrite is most likely present and reacting with oxygen and water to form Sulphuric Acid and Calcium Carbonate thus currently polluting the groundwater. Such a reaction would continue to occur below a landfill liner in the aerated drainage blanket situated above the groundwater level as envisaged in the proposed design, and continue to contribute to the pollution of the local groundwater in an uncontrollable fashion.

This uncontrolled pollution of groundwater would therefore continue to occur in addition to the other problems created by the likely presence of pyrite e.g.

- Foundation instability of the DAC liner and damaged pipework by expansion of the hardcore as in evident in the many local private dwellings in Fingal currently experiencing high pyrite content in sub-floor hardcore, and
- The possible serious financial implications for the quarries which supplied this pyrite containing hardcore.

Please note also the reference to the presence of iron "in significant amounts in soil and rocks"- AER for 2009, page 36, "IRON".

Yours truly?  $\underline{\ell}$  Patrick Boyle, BE for NLAG