

Visual Inspection of Slurry Storage Tanks

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ORIGIN OF NRGE LTD:

- Michael Sweeney, MS FARM SERVICES
- 12 Years Preparing, Submitting, & Managing IPPC Licences for Irish Agricultural Sector.
- Michael McEniry, M & J McEniry Engineers
- 17 Years Experience in Plans & Drawings for Planning & IPPC Requirements, with background in Designing feed Mills.



.NRGE Ltd Options for Tank and Pipeline Assessments at Pig Farms

- Combination of groundwater monitoring based on a hydrogeological assessment.
- Empty contents, clean down internally, carry out visual inspection by engineer every 5 years

DETAILS OF NRGE LTD CLIENTS WITH A TANK AND PIPELINE ASSESSMENT APPROVED BY THE AGENCY.

- 2 Farms with an assessment methodology based on groundwater monitoring.
- 5 Farms with and assessment methodology based on engineers inspection of empty tanks.

NRGE Ltd Selection Criteria for the most suitable inspection methodology

- Firstly the use of the engineers visual inspection of empty tanks every 5 years, is limited to when a house is empty of stock. Therefore a pig farm must be at least partially destocked before it can be of any use. If this is not the case we move to option 2
- Conduct groundwater monitoring following a detailed hydrogeological assessment. This option will be discussed in a later paper to be presented by IE Consultant Orla O Connell.

• **Methodology for Engineers** **Visual Inspection**

- Emptying
- Venting and Solids Removal
- Washing down floors and walls
- Visual Inspection

Tank Emptying

- Conventional Emptying with Vacuum Tanker or Agitation Pump



Venting and Solids Removal

- Build up of Gasses when agitating and slurry abstraction is a significant health and safety risk.
- Vacuum tank abstraction will leave a portion of solid material in the bottom of the tanks which have to be manually or mechanically handled.



Tank Inspections

- Health & Safety
 - Confined Spaces
 - Danger of being overcome by gasses
 - Never Alone
- Need Adequate Lighting
 - PPP
 - Camera

Washing down floors and walls

- Washing down is by high pressure power hose lance
- Accumulated wash water abstracted and the tank allowed to dry for Visual inspection



Typical Tanks & Channels

- 1.8m House Tank



Examples of Problems and Solutions

- Tank Wall Damaged
- Repair by cutting dove tail incisions into wall



50mm deep with con saw/grinder
applying MC-Bauchemie
MC-Fix ST Regulated set
cement





- Thank you for your attention
 - Thanks to the EPA for organising this workshop
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- Michael Sweeney 21st March 20