

Proposed Revision to Title 27, Chapter 3, Article 6: Gas Monitoring and Control at Active and Closed Disposal Sites

Red text is what California Integrated Waste Management Board (CIWMB) is proposing and **blue text** is the EAC proposed text or cross out of CIWMB text.

I. CIWMB's Role: § 20921(b): *"~~The EA, with concurrence by the CIWMB, shall evaluate and, if it complies with the requirements of §§ 20921 – 20937 20939 to the satisfaction of the EA and CIWMB, approve a gas monitoring.....~~"*

EAC comment on proposed text: We do appreciate CIWMB's technical assistance whenever requested. However, CIWMB's involvement in approving routine landfill gas monitoring and control program could cause delays and there is not a need for duplicative efforts by two regulatory agencies. If CIWMB must get involved, then please revise the text to set a time limit for CIWMB staff review and concurrence. Additionally the regulations should be clear that such a scenario will be deemed as CIWMB deferring all decisions and approvals to the EA.

II. EA's Role in LFG Monitoring Probes Design: § 20925(b)(1): *"The ~~minimum maximum~~ lateral spacingunless ~~it can be established to the satisfaction of the EA the operator demonstrates to the satisfaction of the EA, based on the factors specified in from such wider spacing~~"*.

§ 20925(c)(2): *"The proposal must demonstrate ~~to the satisfaction of the EA to the satisfaction of the EA~~ that probes located at these depths are "*

§ 20925(c)(3): *"The operator is not precluded from when the operator demonstrates ~~to the satisfaction of the EA to the satisfaction of the EA~~ that such probes wells have been "*

EAC comment on proposed text: Among EA's responsibilities is review of operator's rational/reason(s) for requesting alternate probe lateral spacing (exceeding 1,000 feet) or depth, and approve or reject the request if technically flawed. Therefore, the regulations must clearly reiterate that EA's approval must be obtained.

III. Probe Depth: § 20925(c)(1): *"The depth of the wellbore of ~~all each monitoring wells~~ shall equal the maximum depth of waste ~~as measured within 1,000 feet of the monitoring point~~ as measured within 1,000 feet of that monitoring point"*.

EA comment on proposed text: Historically, landfill gas migration has been documented up to 1,000 feet away from the waste prism; given the relatively low pressure within the refuse prism (pressure differential is the primary movement mechanism of landfill gas). Hence, tying probe depth to the maximum depth of refuse within 1,000 feet of the probe location is logical. The proposed regulations would require the operator to install all future probes to the maximum depth of refuse

within the entire landfill. This requirement would be unnecessarily costly and a significant overkill. For instance, in Rule 1150.1, South Coast Air Management District requires each probe to “*be of multiple-depth design for which the depth shall be determined based on the depth of refuse no further than 500 feet from the probe*“. The EAC requests that regulatory language not change and remain “*as measured within 1000 feet of the monitoring point.*”

IV. Trace Gases: § 20921(a)(3): “~~Trace gases shall be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds~~”.

§ 20934(a): “~~Provided that t~~The results ofshow gas concentrations or distribution in excess of the levels specified in § 20921(a) the operator shall submit the results to the EA as specified by the EA but no more than ~~within~~ ninety days ~~of from~~ sampling “.

§ 20937(a): “When the results of landfill gas monitoring indicate concentrations of methane ~~or trace gases~~ in excess of the compliance levels ~~required by specified in~~ § 20921(a) “.

§ 20939(a)(3): “~~Reduce trace gas concentrations to the level specified in § 20921(a); and~~”.

EAC comment on proposed text: We are not sure what is meant by gas “distribution” and there are no corresponding levels in § 20921(a). Furthermore, the EA does not have a role when it comes to control of *trace gases* especially when there are no established compliance levels in 27 CCR which is focused on protection of public safety from explosions caused by the methane content of landfill gas. This is evidenced by § 20921(a) setting the regulatory limit at the lower explosive limit of methane and setting no compliance levels for the trace gases. Finally, trace gases are regulated by the local Air Pollution Control Districts (APCD) or Air Quality Management Districts (AQMD) when landfill gas escapes to the atmosphere or by Department of Toxic Substances Control (DTSC) when landfill gas escapes to the native unsaturated adjacent soil or by the Regional Water Quality Control Boards (RWQCB) if the landfill gas plume has reached the underlying groundwater body.

The EAC suggests revising the text in the regulations making a reference to the APCD/AQMD, DTSC, or RWQCB as appropriate, if there are concerns regarding presence of trace gases in landfill gas at site boundaries, and their adverse effects on public health and the environment. For example, suggested language for 27 CCR § 20921(a)(3) might be: “*Trace gases shall be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds as regulated by the Air Pollution Control District, Air Quality Management District, Regional Water Quality Control Board or Department of Toxic Substances Control*”. This revised language would avoid regulatory overlap among Cal EPA agencies and encourage referrals toward agencies with the authority to address trace gases at landfills.

V. EA's Role in Site Remediation: § 20937(a)(3): "*Within 60 days of detection, implement a remediation plan approved by the EA for the methane gas releases, place a copy of the plan in the operating record, ~~forward a copy of the plan to the EA and CIWMB, and notify the EA that the plan has been implemented~~*".

EAC comment on proposed text: The regulations should clearly mandate the operator to obtain EA's approval on (not merely notification) the remedial plan prior to implementation.