

HEALTH PROTECTIVE STANDARDS FOR THE INJECTION OF BIOMETHANE INTO THE COMMON CARRIER PIPELINE



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What is Biomethane?

- * Waste decomposes anaerobically
- * Biogas = raw (unprocessed) mixture of methane and carbon dioxide
- * Biomethane is biogas that is upgraded to pipeline quality (natural gas)



Sources of biomethane?

- * Landfills
- * Dairies
- * Sewage treatment plants (POTWs)
 - Point Loma Wastewater Treatment Plant



Benefits of Biomethane

- * Supporting energy diversity as a renewable energy source
- * Reducing greenhouse gas emissions
- * Promoting sustainable waste management practices
- * Creating new jobs in California



AB 1900

- * Requires California Public Utilities Commission (CPUC) develop standards for biogas
- * Office of Environmental Health Hazard Assessment (OEHHA) and Air Resources Board (ARB) prepared a report with recommendations to CPUC on the public health aspects of injecting biomethane into common carrier pipelines



AB 1900 TF Position



- * TF sent an “Oppose Unless Amended” letter to Senate Environmental Quality Committee on June 28, 2012
- * AB 1900 reinforced scientifically inaccurate provisions in State law, specifically Public Resource Code 25741, that discourage the utilization of State resources and inhibit the development of renewable energy generating conversion technologies

OEHHA Tasks and Findings

- * To compile a list of constituents of concern found in biogas that could:
 - a) pose a health risk
 - b) at levels that significantly exceed concentrations of those constituents in natural gas
- * Determine health protective levels for these constituents

Periodic Table of Elements

The image shows a standard periodic table of elements. The elements are arranged in rows and columns, with their atomic numbers and symbols. The table is color-coded by groups: IA (orange), IIA (yellow), IIIA (green), IVA (light green), VA (light blue), VIA (blue), VIIA (dark blue), and 0 (purple). The lanthanide and actinide series are shown at the bottom of the table.

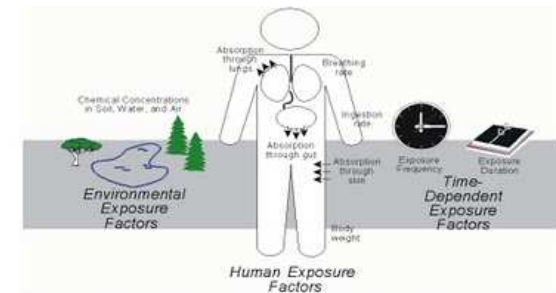
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*Lanthanide Series
Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb
*Actinide Series
Th Pa U Np Pu Am Cm Bk Cf Es Fm Md No Lr



ARB Tasks and Findings

- * To develop realistic exposure scenarios
- * Identify the associated health risk to utility workers and gas end users
- * Determine the concentrations of these constituents in biogas necessary to protect public health
- * Identify monitoring, testing, reporting, and recordkeeping requirements



Questions?

<http://www.arb.ca.gov/energy/biogas/biogas.htm>

