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GOVERNMENT MUST ACT ON AIR POLLUTION FROM CSG FIELDS

The National Toxics Network is calling on the federal government to take urgent action to protect the public's health and the environment in light of new research released today by the Southern Cross University (SCU), which confirms emissions of air pollutants from coal seam gas (CSG) activities.

The study by the Centre for Coastal Biogeochemistry and the School of Environment, Science and Engineering at SCU used atmospheric radon (^{222}Rn) and carbon dioxide concentrations to measure chemical releases to air from the coal seam gas (CSG) fields in Tara, Queensland. A three fold increase was measured in maximum radon concentration inside the gas field compared to outside.

"These findings support the results of preliminary air testing around Tara which also showed increased levels of air pollutants".

"The research confirms CSG activities can lead to the release of toxic gases like carbon dioxide, radon and methane, as well as changing the geological structure to allow these gases to escape more easily" said Dr Mariann Lloyd-Smith, NTN's Senior Advisor

"Methane is a powerful greenhouse gas with a global warming potential 25 times that of CO₂ over a 100-year time horizon. Methane is not directly harmful to human health at low concentrations, but its contribution to greenhouse gases will ultimately be harmful to human health," said Dr Mariann Lloyd-Smith.

"The detection of these gases also indicates the likelihood that other toxic substances, such as volatile organic compounds (VOCs) which can be very harmful to human health, are also being released," she said.

"There's been no comprehensive monitoring of air pollutants in the Tara gas fields, yet one-off samples of ambient air taken near Tara homes have detected a range of VOCs, including carcinogens like benzene and persistent pollutants like dichlorodifluoromethane, which has an estimated half-life of 8.4 months in air, meaning that it can travel long distances in air".

"In preliminary testing, toluene, a neurotoxin was detected in the air around at least eight Tara homes and in the air over a private bore. In the latter, the level (0.33ppm) was simply dismissed as below levels of concern, yet it is well above the 'Chronic Reference Exposure Limits' used in California, Massachusetts and Michigan for long-term exposure".

"While this sampling is clearly inadequate to assess emissions and air pollution, these preliminary results, supported by evidence from this new emissions study, means that a broad-spectrum, high-periodicity, long-term, monitoring program is warranted and long overdue," Dr Lloyd-Smith concluded.

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Reference: Douglas R. Tait, Isaac Santos, Damien Troy Maher, Tyler Jarrod Cyronak, & Rachael Jane Davis Enrichment of radon and carbon dioxide in the open atmosphere of an Australian coal seam gas field *Environ. Sci. Technol.* <http://pubs.acs.org/doi/abs/10.1021/es304538g>