

**Senate Standing Committee on Environment and Communications**  
**Legislation Committee**  
Answers to questions on notice  
**Environment portfolio**

**Question No:** 113  
**Hearing:** Additional Estimates  
**Outcome:** Outcome 4  
**Programme:** Science  
**Topic:** PEC recalculation  
**Hansard Page:** N/A  
**Question Date:** 24 February 2016  
**Question Type:** Written

**Senator Waters asked:**

**Background:** At a meeting of the IESC on 18: June 2014 the following was minuted:

National Assessment of Chemicals associated with Coal Seam Gas Extraction

The IESC reviewed two reports from the chemicals risk assessment project on predicted environmental concentrations (PECs) to inform the health and environment risk assessment and geogenic contaminants. IESC members emphasised the importance of summaries that could be readily understood by a broad audience, encouraged careful consideration of the scenarios being analysed, sought clarification on the applicability of the PECs to different catchments, suggested consideration of organic and inorganic chemicals, and sought clarification regarding the use of the coal samples.

1. Did industry have input into the recalculation of the predicted environmental concentrations (PECs) of chemicals which informed the health and envtl assessments?
2. Did industry have input into other elements of the report? Did you or NICNAS rely on industry figures for other elements of your work?

**Answer:**

1. Predicted environmental concentrations (PECs) are estimates of the concentration of a chemical that would be present in an environmental compartment, such as a lake, stream or groundwater, under different release scenarios and given certain assumptions about the movement of chemicals through the environment. To calculate PECs, scientists from CSIRO and the Department of the Environment developed models of how the chemical will move through the environment.

The coal seam gas industry was not involved in the development of models for, or calculation of, the PECs for the National assessment of chemicals associated with coal seam gas extraction in Australia. The role of the coal seam gas industry was to provide the basic chemical data required to calculate the PECs.

2. The role of the coal seam gas industry in the assessment has been to provide basic data on the chemicals used in drilling and hydraulic fracturing for coal seam gas extraction in Australia between 2010 and 2012, including physio-chemical and ecotoxicological data, and information on chemical use, handling and management practices. This information has been used by the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) and the Department in the human health and environmental risk assessments. All data provided by the industry has been scrutinised by the Department, NICNAS and CSIRO to ensure its quality.