

São Paulo, August 5 2013

SBPC-081/Dir.

To  
President DILMA VANA ROUSSEFF  
Presidency of the Federative Republic of Brazil

The Brazilian Society for the Science Progress (SBPC) and the Brazilian Sciences Academy (ABC) hereby declare their concern with the announcement by the National Petrol Agency (ANP) to include in the next national bid in November “shale gas fracking” from natural gas fields in Brazilian sedimentary basins.

Although the news published by the USA International Energy Agency suggest that the occurrence of shale gas reserves is 7,35 trillions of cubic meters in the geological basins of Paraná, Parnaíba, Solimoes and Amazonas, Reconcavo and São Francisco (north of Bahia state and South of Minas Gerais state), and ANP estimates that these quantities can be the double, it should note these estimations are totally preliminary, in special due to the petrographic, structural and geomechanical characteristics of the geology considered in this calculation, which can decisively influence the economy of their exploitation.

On the other side, the shale gas exploitation, despite the technological and economic success firstly presented by the USA, there are questions about the environmental risks and damages involved. While the natural gas and petrol occur in specific geological structures and niches, the shale gas impregnates the whole stone or geological formation. The shale gas extraction technology is based on invasive processes on the shale gas geological layer, through the hydraulic fracture technique with injection of water and chemicals, where it may cause spills and contamination of potable water aquifers above the shale.

Also, the great volumes of water, needed in the extraction process, return to the surface polluted by hydrocarbons and other compounds and metals present in the stones and by the chemical additives used, require very expensive techniques of purification and for the discard of the final wastes. The water catchment itself may be under heavy competition with other preferential uses such as the water supply for human beings.

It is significant to note that, for example, a great part of the reserves of gas/shale oil of the Parana Basin in Brazil and part of the reserves in the north of Argentina are just below the Guarani Aquifer, the major source of high quality potable water of the South America. Therefore, the exploration of shale gas in these regions shall be carefully evaluated, since there is a potential risk of contamination of the aquifer.

In this sense it is not reasonable that areas of exploitation are immediately offered to companies, excluding the scientific community and the other regulatory agencies of the country from the access and discussion of all

information available through studies by Universities and research institutes. Such studies give a better knowledge of the intrinsic properties of the ores and their exploration conditions, as well as the environmental consequences of this activity that may largely overcome its possible social gains.

Due to that, and in view of the outcomes of the discussions during the 65th SBPC Meeting held in Recife, Pernambuco, from 22 to 27 July 2013, we hereby request to the President of the Republic that the bid of the shale gas areas for exploitation be suspended in the 12th Round foreseen for November, for a term sufficient to complete the studies mentioned above concerning the real potential of the fracking and the possible environmental damages.

Sincerely,

HELENA B. NADER  
SBPC President

JACOB PALIS  
ABC President

C/C: Presidents of the Parliament and Senate, ANP, CNPEM, MME, MCTI, MMA, CTPetro, FINEP, CNPq and Societies affiliated to SBPC.