



UNIVERSIDAD DE
MURCIA

DEPARTAMENTO DE INGENIERÍA QUÍMICA

March 2, 2015

National Council for Planning and Construction
Jerusalem
Israel

Dear Sir/Madam,

I am an international expert on the topic of air pollutants as well as an associate professor at the Chemical Engineering Department of the University of Murcia (Spain). In 2010, I co-authored the paper "*Assessing the impact of petrol stations on their immediate surroundings*¹", where impact distances from petrol stations are assessed. I have been recently contacted by Mr Nir Shalev from Bimkom concerning the new National Outline Plan number 18/4/1.

My research found that some airborne organic compounds – such as benzene, which increases the risk of cancer – were higher near gas stations compared to other urban areas where traffic is the primary source of emission.

My study, published in the Journal of Environmental Management, shows the air at gasoline stations is affected by emissions stemming from evaporated vehicle fuels - unburned fuels from fuel loading and unloading operations, refueling and liquid spillages. The petrol station of the study was Stage I implemented, that is, it uses vapour recovery devices to return the VOC-saturated volume of air displaced from the storage tank being filled to the tank being emptied.

I believe that my research is very relevant to the issue you are discussing at the moment in Israel. Our research was based on a petrol station pumping less than 1 million gallons of petrol per year located in the Southeast of Spain. Based on our findings, we recommend a 100 meter distance between hospitals, health centers, and schools and, at least 50 meters from residential buildings. Given that the weather in Israel is similar to that of the location of our study, I advise you to observe a similar buffer zone for petrol stations in Israel. Otherwise, smaller distances are likely to increase the risk of cancer and possibly other diseases in people living at the vicinity of petrol stations and therefore pose a risk to public health.

Sincerely,

Dr Marta Doval Miñarro
Chemical Engineering Department
University of Murcia
mdoval@um.es

¹ Journal of Environmental Management, Volume 91, Issue 12, December 2010, Pages 2754–2762.