

**Ann Kehoe**

**Subject:**  
**Attachments:**

FW: Concerns regarding possible public health effects associated with emissions from Brandon Products Ltd. Kilcolman, Asdee, Co. Kerry  
PublicHealthConcerns\_Brandon.pdf

*Sub 14*

**From:** Dr. Ina Kelly (Specialist in Public Health Medicine) [mailto:ina.kelly@hse.ie]

**Sent:** 13 December 2013 15:28

**To:** Aisling Nolan

**Cc:** Shay Bowe

**Subject:** FW: Concerns regarding possible public health effects associated with emissions from Brandon Products Ltd. Kilcolman, Asdee, Co. Kerry

Dear Ms. Kehoe,

The enclosed letter to Ms. Laura Burke refers to Brandon Products Ltd. Kilcolman, Asdee, County Kerry (Reg. No. P0957-01) and is an update following my letter to you of 29<sup>th</sup> July 2013.  
Best wishes, Ina

**Dr. Ina Kelly (SPHM)**  
**Department of Public Health**  
**MCRN: 011181**

<http://www.hse.ie/publichealth>

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**From:** Dr. Ina Kelly (Specialist in Public Health Medicine)

**Sent:** 13 December 2013 15:21

**To:** 'l.burke@epa.ie'

**Cc:** Dr. Elizabeth Keane (Director of Public Health); Dr. Mary T. O'Mahony (Specialist in Public Health Medicine); 'Kelleher, Kevin'; 'Cuddihy, John Martin'; 'Peter Cunningham'; 'Maria Lenihan'

**Subject:** Concerns regarding possible public health effects associated with emissions from Brandon Products Ltd. Kilcolman, Asdee, Co. Kerry

Dear Ms. Burke,

Please see letter attached regarding an initial health inquiry in relation to concerns regarding possible public health effects associated with emissions from Brandon Products Ltd. Kilcolman, Asdee, Co. Kerry.

Best wishes, Ina

**Dr. Ina Kelly**  
**Specialist in Public Health Medicine**  
**MCRN: 011181**

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Feidhmeannacht na Seirbhíse Sláinte  
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13<sup>th</sup> December 2013

Ms. Laura Burke,  
Director General of the Environmental Protection Agency,  
PO Box 3000,  
Johnstown Castle Estate,  
Wexford.

**Re: Concerns regarding possible public health effects associated with emissions from Brandon Products Ltd. Kilcolman, Asdee, Co. Kerry.**

Dear Ms. Burke,

On the 23<sup>rd</sup> of July 2013, I was contacted by Ms. Maria Lenihan, Office of Environmental Enforcement, EPA, with regard to suspected public health effects associated with Brandon Products Limited. As requested I carried out an initial inquiry as per the "Protocol for the investigative approach to serious animal/human health problems"<sup>1</sup> and I find that there is some substance to the concerns.

This initial health enquiry indicates there is a completed pathway of exposure to odorous gases from Brandon Products Ltd. to the public downwind of the facility, using ATSDR methodology<sup>2</sup>. Initial indications are that all of the permanent residents downwind (of the prevailing wind) have made complaints of odours, ranging in intensity from mild up-to and including frequent complaints of intolerable odours at Level 4 of *EPA Odour Impact Assessment Guidance for EPA Licensed Sites (AG5)*- "Very Strong Odour (unbearable, difficult to remain in area affected by odour". Odour complaint information and logs suggest that: sometimes people at public exposure points perceive no odours; sometimes milder odours that are merely offensive are experienced; but that sometimes the levels of odour are so irritant that they are intolerable. The proportion of days affected by odour appears to be about 1 in 3.

<sup>1</sup> Protocol for the investigative approach to serious animal/human health problems. (See [http://www.lenus.ie/hse/bitstream/10147/283234/1/EPA\\_protocol\\_investigation\\_animal\\_human\\_health.pdf](http://www.lenus.ie/hse/bitstream/10147/283234/1/EPA_protocol_investigation_animal_human_health.pdf))

<sup>2</sup> ATSDR Public Health Assessment Guidance Manual (2005 Update), Chapter 6. Exposure evaluation: evaluating exposure pathways (See <http://www.atsdr.cdc.gov/hac/PHAManual/ch6.html#6.1>)

EPA inspectors have also experienced odours at Level 4, experiencing acute health effects lasting more than a day, such that they attended their medical practitioner. The limited information on emissions from the facility indicates that toxic gases may be emitted at some times. I believe a variety of processes may occur, so emissions may vary depending on processes carried out by the facility at any one time. However, there is no data on the concentrations of any gases at public exposure points and especially when Level 4 odours are apparent at these points.

Since the initial health enquiry was requested, a 14.8 metre stack has been installed at the facility, but odour complaints have been received and verified since installation. Independent monitoring of emissions at the facility was carried out on 17<sup>th</sup> September 2013 for the EPA. In that report the measured concentrations of bioaerosols reported appear to be elevated and this requires further investigation. However it is doubtful that the emissions reported are representative of odorous gases perceived at public exposure points because:

- I have been informed that no odours were detected at exposure points that day
- The bioaerosols measured are not closely related to odour

Of the eight residents downwind of the facility, in the direction of the prevailing wind, six have chronic respiratory disease or symptoms. It is not possible to say that any of these illnesses are directly attributable to odorous gases. But it should be noted that, in general, people who are more vulnerable to respiratory disease should avoid exposure to respiratory irritants. Therefore, additional caution is required in relation to air quality.

Several residents report significant stress because of the on-going nature of this problem (4-5 years) and their inability to achieve a solution. This appears to have had a very significant adverse impact on their quality of life. Residents are aware that complaints were made about this company at its previous site(s) and that for this reason the facility was moved to its current location. The county council has verified there were complaints about this company at previous site(s). An Environmental Impact Statement was submitted to the EPA on 3<sup>rd</sup> of July 2013. It states that in relation to the impact on human beings, "particular regard is given to the potential impact of the existing operation on the local communities" and notes that "the company has received odour complaints which they have addressed". The EIS report doesn't indicate awareness that odour and health complaints are on-going and these issues are not addressed in the EIS.

Based on the information available at present the following scenarios are possible:

1. Odour without toxicity - odorous gases perceived do not reach toxic levels at any time and that the effects of the gases are nuisance and stress, but have no physical effects
2. Odour with toxicity - odorous gases reach toxic levels sometimes and so may cause acute and / or chronic health effects as well as nuisance and stress
3. Toxicity without odour - gases such as bioaerosols that may not be associated with odour could have potential for acute and/or chronic health effects.

Based on the initial health inquiry, there is insufficient data to identify which scenarios are, or are not, occurring. Therefore it is impossible to reassure residents with regard to possible health effects associated with odorous or other gases.

According to the EPA Air Guidance Note 5, "odour nuisance= pollution" and IPPC licensees are expected to ensure that "odours do not give rise to nuisance at the facility or in the immediate area of the facility". This indicates that residents should not be obliged to be exposed to odorous gases on an on-going basis.

Authorities in other jurisdictions indicate a similar view. For example, in New South Wales (NSW) one of the principles in planning is that "all avoidable risks should be avoided"<sup>3</sup>. The NSW Department of Planning points out that acceptability of risk should be taken into account and that people "are far less tolerant of risks imposed on them and over which they have little control, unless they consider the risks as negligible". NSW authorities also note "that risks and benefits tend to be unevenly distributed".

Public Health England also has the view that residents should only rarely be exposed to mild odour nuisance. Residents should not continue to be exposed to odorous gases such that they experience acute health effects.

Of interest to this initial health inquiry, the NSW Department of Planning give toxic exposure criteria: "toxic concentrations in residential and sensitive use areas should not cause irritation to eyes or throat, coughing or other acute physiological responses in sensitive members of the community over a maximum frequency of 50 in a million per year". Reports from residents and EPA inspectors indicate that this recommended maximum frequency is far exceeded in this case.

As you are aware, the Department of Public Health has no authority/responsibility to control this issue, but our role is to provide advice.

My recommendations to the EPA are:

1. Comprehensive independent environmental monitoring, taking consideration of worst case scenarios and consequent public health effects, should be prioritised by the EPA. Monitoring should take account of variation in gases produced and emitted at the facility and measurable at public exposure points.
2. I endorse the recommendations of our specialist environmental advisors at Public Health England who said "*We recommend modelling of stack emissions is undertaken to predict likely ground level concentrations downwind of the factory. This modelling should consider a range of meteorological conditions especially those likely to restrict dispersion of stack emissions*".
3. The EPA should commission a comprehensive Environmental Impact Assessment paying particular attention to the impact on human beings including health impacts if any.

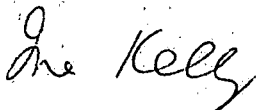
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<sup>3</sup> Risk Criteria for Land Use Safety Planning. January 2011. (See <http://www.planning.nsw.gov.au/Portals/0/HIPAP%204%20Final%202011.pdf>)

4. A system for early recognition of health complaints and effects should be set up across agencies. Residents say they have been complaining to authorities for 4-5 years without any effective action being taken.
5. If there are gaps in legislation such that the health of the public is not protected, the EPA might make the case for improved legislation to legislators.
6. A system to protect confidentiality of personal health information should be instituted by the EPA so that lack of confidentiality is not a barrier to health complaints. The name and personal health information of one of the residents is on her GP's submission with regard to licensing of this facility, and is in the public domain on the EPA website. While this person may have given permission to have her personal health information available to the public on the EPA website, another resident identified this as a barrier for them to make health complaints to the EPA. This may have been a barrier to others as personal health information is generally considered to be very sensitive information.
7. The approach to the assessment of odour complaints should be reviewed. A precautionary approach would suggest one should rule out evidence of toxicity associated with odour.

I recommend this matter for your attention. If you need more information, please do not hesitate to contact me.

Yours sincerely,



**Dr. Ina Kelly, MB BCH, MPH, FFPHMI**  
**Medical Council Registration Number: 011181**  
**Specialist in Public Health Medicine**

cc: *Prof. Elizabeth Keane, Director of Public Health, HSE South (Cork and Kerry)*  
*Dr. Mary O'Mahony, Consultant in Public Health Medicine, HSE South (Cork and Kerry)*  
*Dr. Kevin Kelleher, Assistant National Director, Health & Wellbeing – Public Health and Child Health, Health Service Executive and EPA Health Advisory Committee*  
*Dr. John Cuddihy, Consultant in Public Health Medicine, EPA Advisory Committee*  
*Mr. Peter Cunningham, Office of Environmental Enforcement, EPA*  
*Ms. Maria Lenihan, Office of Environmental Enforcement, EPA*