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The author asserts her moral rights generally in respect to this Witness Statement.

On behalf of: Claimant

Witness: G. Downs

1st statement

Exhibits referred to: GD/1, GD/2, GD/3

Date of statement: 22nd October 2006

Case Number: CO/4483/2004

Claimant: The Queen (on the application of Georgina Downs)

Defendant: Secretary of State for Environment, Food and Rural Affairs

- 1 My name is Georgina Downs. My address is “Reflections”, Runcton Lane, Runcton, Chichester, West Sussex, PO20 1PT. I am a full-time pesticides campaigner and the Claimant in these proceedings. I make this statement in support of my application for permission to apply for judicial review, as detailed in the Amended Grounds for Judicial Review dated 20 October 2006.
- 2 Save where otherwise stated, I depose to the truth of the facts contained in this statement from my own knowledge.

Background

- 3 In the early 1980s, my parents purchased a piece of land in the countryside on which they designed and built what was intended to be their “dream home”. In 1984, about a year after we moved into the house, a local farmer switched use of the surrounding fields from grazing to arable crops and from then on they were frequently sprayed with pesticides. At that time, I was 11 years old. We were never warned about the dangers or risks of the chemicals being used and in fact from the age of 11, I would regularly be in the garden when crop-spraying was taking place, with the tractor passing only a few feet away from me.
- 4 Throughout the years, I suffered from ill-health, notably flu-type illnesses, sore throats covered in blisters, (where my throat would swell to such a degree that the sides almost touched each other), as well as blisters/ulcers in the mouth (at times this could be as many as 20 at a time), headaches, dizziness, giddiness, tinnitus and memory and concentration problems, amongst other things. I missed many weeks off school and college as a result of these ongoing health problems.
- 5 We were never told about the pesticides by anyone, so for 9 years we continued to have all windows and doors open in the summer during the spraying season and would regularly be in the garden during spraying.
- 6 By 1991, my health had deteriorated to such a degree that I was hospitalized with severe muscle wastage, muscle weakness and other chronic symptoms. I knew something had gone seriously wrong neurologically, but at that time, I didn't know

the correct terminology to be able to explain it. I underwent a series of tests and scans that ruled out a number of neurological diseases, such as Multiple Sclerosis (MS), Motor Neurone Disease (MND) and Parkinson's disease.

- 7 On leaving hospital, I was determined to discover what had happened to my health. It wasn't until I was sitting at home one day looking out the window that the penny finally dropped. I saw a tractor in the adjoining field spraying something and started to wonder what it was. Following some initial inquiries, I was astonished to discover that the tractor was actually spraying a *cocktail* of poisonous chemicals into the air where we live and breathe, and even more astonished to find out that a farmer is permitted to do so under existing government policy.
- 8 After looking into the effects of pesticides, I discovered that the ongoing health problems I had suffered for years (detailed at paragraph 4 above) were the same type of *acute* effects that can occur following exposure to pesticides, in particular the flu-type illnesses, headaches, sore throats covered in blisters, as well as blisters/ulcers in the mouth. I also discovered that repeated acute effects of this sort could lead to chronic long-term health problems.
- 9 Pesticides, by their very nature, are designed to kill living organisms. They include insecticides, herbicides and fungicides, amongst others.
- 10 People can be exposed to pesticides via air, water, contaminated surfaces and food, amongst other sources, and the routes of exposure include the lungs (inhalation), the skin (dermal absorption) and the eyes, as well as ingestion (orally). Once pesticides have been absorbed, they can enter the blood stream and be carried throughout the body.
- 11 The safety data sheet for each pesticide product shows how hazardous these chemicals are via inhalation with warnings such as, '*Very toxic by inhalation*', '*Do not breathe spray*', '*Do not breathe fumes*', '*Do not breathe vapour*', '*Harmful, possible risk of irreversible effects through inhalation*', '*May cause cancer by inhalation*', "*May be fatal if inhaled.*" [I/742-776].
- 12 Therefore considering the clear warnings on the safety data sheets, it is in my view obviously advisable, and common sense, to avoid inhaling any fumes or vapours that may be present in the area after application.
- 13 We started to make sure all the doors and windows were closed when spraying was taking place, and for quite a few days after, to try and reduce exposure as much as possible to these chemicals. However, the strong chemical fumes around the house were sometimes still noticeable up to almost a week later. Considering that spraying predominantly takes place during April and July, some of the hottest months of the year, this meant that we were imprisoned in our own home in unbearable heat, (at times in excess of 90 degrees).

- 14 We made repeated approaches to the Health and Safety Executive (HSE) and the local Environmental Health Department for assistance regarding the lack of any protection for our health and safety, property and land from repeated exposures to innumerable mixtures of hazardous chemicals, many of which have neurotoxic, carcinogenic and hormone-disrupting capabilities.
- 15 However, we were always told that the farmer “*wasn’t doing anything illegal,*” and in relation to requests for prior notification before any spraying application, we were informed that there was no legal obligation for a farmer to provide it or any information on the chemicals being used.
- 16 Following our complaints to the HSE, there were some occasions where we did receive prior notification from the farm manager, but not always the 24 hours we had requested, sometimes only 10 minutes, which gave us no time to make alternative arrangements or change plans, and left us very little time to even take the obvious measures such as closing windows, bringing the washing indoors, making sure the pets were inside, putting the cars and any garden furniture away, amongst other things. At this time I used to try and go away when they sprayed, but as notification was not guaranteed and the fact that it could, at times, be very short notice, it was just impossible to pack a bag, get out the house and arrange somewhere else to stay in the allocated time.
- 17 On the occasions where we were informed, we found that very rarely did they spray with just 1 chemical, it was often 3, 4 or 5 different products mixed together. Each product formulation in itself can contain a number of different active ingredients, as well as other chemicals, such as solvents and surfactants etc. There are a number of different fields in the area which can all be growing different crops, which can result in a number of different chemical products being used on each field (one field could be sprayed one day with a 5-way mix of products, then another field with a different 5-way mix and a third field with yet another 5-way mix etc. which again does not take into account the total number of active ingredients, solvents and surfactants etc. that could be present in the formulation).
- 18 **Exhibit GD/1, page 1**, is an aerial photograph of our house. The scale is approximately 1 mile left to right. The small red circle marks our house, which as can be seen, is completely surrounded by fields that run for miles in all directions, which is obviously a common feature of many rural communities. These fields have been sprayed regularly and sequentially with mixtures of pesticides throughout every year, for over 22 years. (The yellow line on the photo indicates where a small 5 metre buffer zone would be in the field next to our home and the complete inadequacy of this distance, as detailed below at paras 72 to 81). **Exhibit GD/1, page 2**, is a second aerial photo of our house and surrounding area, but the scale is one size up and is approximately 2 and a half miles left to right. The small red circle again marks our house.

- 19 My father tries to grow organic vegetables in the garden. He had his eyes burnt very badly when crop-spraying was taking place in May 1998, as he went outside to shut the greenhouse up in an attempt to minimize pesticide contamination of his vegetables and he got a face full of spray. His eyes have been extremely susceptible to subsequent chemical exposures since this incident and he now has no choice but to wear protective clothing (including goggles, respirator, protective suit, gloves and boots) if he has to go outside when the fields are being sprayed and for the days after, although I would like to stress that if crop-spraying is taking place he will only go outside if he absolutely has to.
- 20 Despite suffering these health problems, we have not been able to get any information in relation to the 14 years of chemicals that were used on the surrounding fields next to our property between 1984 and 1998. This information is vital in view of the chronic long-term health effects that my family and I have. In 2002 our then GP wrote to the farmer in question to request this information, but he refused to disclose the records to us, as there was (and still is) no legal obligation for him to do so. Between 1998 to 2002 we were given some information on what chemicals were being used at that time on the surrounding fields, (although not on every occasion that spraying took place) and from 2002 onwards we have not been informed by the neighbouring farmer when spraying took place, or what was being sprayed (although we did receive some limited information relating to one spraying season (2003/4) from a farming business that had leased the adjoining fields from the neighbouring farmer during that time period: this was general information, for that one season only, on the types of chemicals being used but not when or where they were sprayed).
- 21 Therefore the existing system is totally obstructive, as currently members of the public are not entitled to access the information on the chemicals they are exposed to, nor can their doctors or other medical advisors. Yet this information is vital for the correct assessment and treatment of anyone who suffers adverse health effects (whether they be acute or chronic) as a doctor cannot possibly make a proper assessment of their patient's health effects unless this information is provided.
- 22 Additional information related to the continuous crop-spraying activities next to our home:-
- The Environment Agency took some samples from the ground water in our ditch that adjoins the field, in 2002. The results showed the presence of four chemicals. Two of these were organochlorines that had been banned in the early 1980's (Dieldrin and Tde(pp) which is a congener (a chemical constituent) of DDT) and this obviously shows their persistence to still be there over 20 years on. The other two chemicals, Cyanazine and Pirimicarb, had both been used on the field in the previous weeks before the samples were taken and on questioning, the Environment Agency stated that these 2 chemicals were not chemicals that were usually found in groundwater
 - On occasions we have found dead birds in the garden after crop-spraying

- At times we have found burnt trees and vegetation on our land and on one occasion the local Environmental Health officer came out to assess the damage and confirmed it was related to the pesticides that had been sprayed
- There has been harvesting dust containing residues of mixtures of pesticides and other chemicals, sprayed on the crops throughout each year, pouring over our property and so again, windows closed etc. in very hot weather. We can suffer, amongst other things, burning eyes, nose and throat following exposure to this dust
- We have to be very careful planning anything involving the garden especially in relation to relatives children and babies, due to the increased risks for these vulnerable groups
- We have suffered expenses due to the disruption caused to my family as a result of spraying, including if I have to stay away from the area eg. hotel bills and expense of having to stay away for days and sometimes weeks at a time depending on the spraying schedule
- There is ongoing contamination of our land and property and the cleaning up after (eg. hosing down garden furniture, washing any contaminated clothes etc.) and also the probability of high levels of pesticides residues within the house and house dust which would have been tracked indoors from outside
- We have also incurred expenses paid out for equipment to try and reduce exposure to outdoor (and indoor) contamination – eg Air purifiers, fans, goggles, masks, respirators and their filters etc.
- Visitors to our house following spraying applications have been taken ill
- We have video evidence of people walking through the fields when spraying is taking place (See DVD entitled "*Pesticide Exposures for People in Agricultural Areas – Part 1 Pesticides in the Air*" as detailed below at Exhibit GD/2)

23 Everyone has a right to enjoy their own home, but this is something I, and my parents, have not been able to do for a very long time now. (See Appendix 2 of my submission to the DEFRA Consultation on crop-spraying dated 29.9.03, **[I/318-414]** as well as the accompanying video (or enclosed DVD as detailed below at Exhibit GD/2) entitled "*Pesticide Exposures for People in Agricultural Areas – Part 1 Pesticides in the Air; Part 2 The Hidden Costs*" for examples of other residents experiencing this situation, which is mirrored all over the UK).

Case Presented to the Government Regarding the Failure to Protect Residents

24 In early 2001 I realized that if this hazardous practice was in fact permitted under current pesticides policy, then the only way to prevent my family from being put at

further risk was to effect change at policy level and so I started to investigate the history of crop-spraying and the regulatory system for pesticides.

- 25 Following extensive investigations and research into the existing regulations, it became apparent that there was an inherent fundamental failure at all levels to protect people in the countryside from exposure to pesticides. I therefore started to present a case to the Government in early 2001, to highlight the lack of regulation, including the lack of any risk assessment for residents and the serious inadequacies of the so-called '*bystander risk assessment*'.
- 26 The current method of assessing the risks to public health from crop-spraying is based on the predictive model of a '*bystander*,' which assumes that there will only be occasional, short-term exposure from the spray cloud at the time of the application only. It also assumes exposure will only be to one individual pesticide at any time. (See document entitled "*Bystander Exposure Examples*" sent to me by the Pesticides Safety Directorate (PSD) in March 2002 [I/21-23]).
- 27 I have continued to argue that this model does not address the long-term exposure of residents actually living near sprayed fields, where they will be repeatedly and frequently exposed to mixtures of pesticides and other hazardous chemicals, throughout every year, and in many cases, like mine, for decades. (As detailed in paras 17 and 18 above).
- 28 The current assessment does not include in the exposure calculations all the exposure factors relevant for rural residents and communities. These include long term exposure to pesticides in the air, exposure to vapours after application, reactivation, precipitation, pesticides transported from outdoor applications and redistributed into an indoor air environment, exposure to mixtures, and long-range transportation, (as studies have shown that pesticides can travel in the air for miles, as detailed in paras 74 to 80 below).
- 29 **Therefore even though crop-spraying has been a predominant feature of agriculture for over 50 years, there has never been any risk assessment for residents, yet pesticides are not supposed to be approved for use until risk assessments have been undertaken to provide evidence that there will not be a health risk.**
- 30 There is a clear mismatch and inconsistency between the extensive protection afforded to workers and the lack of any protection for residents. Workers are allowed to know what chemicals they are using, the risks and potential health effects and are required to wear protective equipment. Whereas, members of the public have no knowledge, information or protective clothing yet they could be inches away, breathing in the very same airborne droplets, particles, vapours and dusts that workers are required to have protection from and yet they are deemed to be "*officially safe*" within the current regulatory system. (Obviously residents will include babies,

children, pregnant women, the elderly, those with pre-existing medical problems, chemical sensitivity and other vulnerable groups where the health risks are increased).

- 31 I made representations on behalf of all those living near sprayed fields at the Advisory Committee on Pesticides (ACP) Open Meeting in July 2001 and then following this to the Policy Commission on the Future of Farming and Food in September 2001. I also managed to arrange a meeting with members of the Policy Commission held at the Cabinet Office on December 3rd 2001.
- 32 The then Chairman of the ACP, Professor David Coggon was called in to meet members of the Policy Commission the following week to respond to the questions raised about the current regulations and monitoring system for pesticides.
- 33 Helen Browning, one of the members of the Policy Commission stated in September 2003 that *“One of the issues that greatly concerned me while I was involved with the Government’s Policy Commission (“Curry”) was the evidence given by Georgina Downs on the effect that pesticide drift had on her health and that of her family. In the short time we had available, we could not seem to get any reliable figures of how many incidences of suspected pesticide poisoning were occurring each year and what the legal position is for those affected.”*
- 34 In February 2002, I was invited by Professor David Coggon to make a presentation regarding the *“bystander risk assessment”* to the ACP at their Open Meeting on July 10th 2002. I produced a paper that was circulated to all attendees prior to the meeting entitled *“Why the “bystander risk assessment” does not equate to real-life exposure scenarios.”* I also produced a video with mannequins and presented it at the meeting to illustrate the reality of crop-spraying near human habitation and the inherent health risks. I chose mannequins that resembled some of the more vulnerable groups, including a pregnant woman, two babies and a young child. The video showed crop-spraying taking place on 3 separate occasions over just a one-month period in the adjoining field to our property and land. (NB. It does not show all the additional applications in other fields in the vicinity over that time period). The 9 minute video entitled *“Pesticide Exposures for People in Agricultural Areas – Part 1 Pesticides in the Air,”* has recently been put onto DVD format and is exhibited hereto as **GD/2** along with 4 stills from the DVD, which are numbered pages 1 – 4. (See also the paper I presented for the ACP meeting entitled *“Why the “bystander risk assessment” does not equate to real-life exposure scenarios”* at **[I/33-45]**).
- 35 When I asked the attendees to raise their hands if they thought that the video had shown an acceptable system for protecting public health, not a single hand went up.
- 36 During the meeting, the ACP requested that further work needed to be carried out by the Government regulators, the Pesticides Safety Directorate (PSD) to address the issues I had raised.

37 I then met with the DEFRA Ministers Lord Whitty (Minister for Food and Farming) and Michael Meacher (Former Minister for Environment) on December 17th 2002 to show them the video and to present the case for a change in the regulations and legislation governing agricultural spraying. This included the call for a) a ban on crop-spraying within a certain distance of homes, schools, workplaces or any other places of human habitation as well as b) prior notification before any spraying application and direct public access to all the necessary chemical information. During this meeting it was stated that *“You haven’t just thrown another stone into the pool, you’ve really made a case and obviously we need to respond in one way or another.”* (However, although there has been a lot of talk and political activity regarding this issue over the last 5 years, as it has transpired the Government has not responded to the case presented, as nothing has actually changed. There remains an inherent fundamental failure at all levels to protect people in the countryside from exposure to pesticides and this is the reason I am bringing these proceedings).

The DEFRA Consultations on Crop Spraying

38 Following this meeting and subsequent media coverage of my campaign, DEFRA Ministers decided to launch 2 Consultations on crop-spraying on July 21st 2003 that were proposing the introduction of the measures that I had been campaigning for. **[I/279-281].**

39 The first, an *“informal”* consultation, considered proposals for mandatory notification and disclosure of information to the public concerning spray activities. **[I/281-285].**

40 The second *“formal”* consultation was in relation to introducing mandatory no-spray zones around residential areas. **[I/286-297].**

41 The Consultations resulted in one of the highest number of responses since DEFRA records began.

42 The DEFRA Consultation document portrayed an unbalanced view of the problem, as it focused on the potential costs and negative implications for the farming industry and economics of production, but didn’t address anywhere the existing costs and devastating effects on residents and others in the countryside from the continued use of chemicals in agriculture. Therefore, as previously detailed to the Court in my original claim form dated 16.9.04, this raised serious questions about its adequacy, relevance and impartiality. **[II/32-51].**

43 I made an extensive written submission to this Consultation highlighting the inadequacies of the current regulatory and monitoring systems for pesticides, supported by references and excerpts from various international scientific journals and papers. I also submitted a second video to accompany the written material that featured individuals and families from all over the country reporting illnesses and diseases in rural communities surrounded by sprayed fields, as throughout my work on this issue I have continued to receive reports of this nature. A number of those

featured on the video had been diagnosed as suffering from pesticide related ill-health. (See my submission to the DEFRA Consultation on crop-spraying dated 29.9.03, [I/318-414] as well as the accompanying video entitled "*Pesticide Exposures for People in Agricultural Areas – Part 2 The Hidden Costs.*" (This second video is also on the enclosed DVD. The VHS format of both videos was included in the original bundle).

- 44 The acute ill-health effects that are commonly reported to me include sore throats, burning eyes, nose, skin, blisters, headaches, dizziness, giddiness, nausea, stomach pains and flu-type illnesses, amongst other things.
- 45 The most common chronic long-term illnesses and diseases reported include various cancers, (eg. breast, prostate, stomach, bowel, brain, and skin cancer) leukaemia, non-Hodgkins lymphoma, neurological conditions, (including Parkinson's disease, Multiple Sclerosis (MS) and Myalgic Encephalomyelitis (ME)), asthma, allergies, along with many other medical conditions.
- 46 Reports of this nature have gone on for decades, (not only here in the UK, but all over the world, as this is an international problem) and many are related to young children. I also receive reports of diseases such as cancer and leukaemia in dogs and other domesticated animals as well. (To see examples of the types of reports I receive see Appendix 2 of my submission to the DEFRA Consultation on crop-spraying dated 29.9.03, [I/318-414] as well as the accompanying video (or enclosed DVD) "*Pesticide Exposures for People in Agricultural Areas – Part 2 The Hidden Costs.*")
- 47 Yet in the UK there does not appear to have been any monitoring for chronic effects, and acute effects are commonly dismissed by Government agencies and advisors as being either *non-serious* or as unrelated to pesticide exposure. Therefore the full extent of ill-health related to pesticides is currently not known.
- 48 In relation to my own ongoing chronic health problems, in April 2004 I had some blood and fat samples taken to check for pesticide levels. The results showed a number of different pesticides in both my blood and body fat. The doctor who interpreted the results stated "*I have now seen many of these fat biopsies and I do not think I have another patient with so many different pesticides in it.*" She also stated "*There is now good evidence that with chemicals one sees a cocktail – that is to say that the combined effects of chemicals are far greater than their effects in isolation. Therefore, the accumulative toxicity of these chemicals is likely to be high.*" She therefore recommended "*...the most important aspect is to avoid ongoing exposure.*" This is obviously not possible in the situation I live in surrounded by fields that are regularly sprayed with mixtures of different pesticides, throughout every year. Obviously in addition to the health problems I have now, I have no idea what other chronic health effects may yet be to come that could be as a result of my ongoing exposure to pesticides in crop-spraying, particularly as I was exposed from a very young age.

- 49 During mid-2003 there had been a Government reshuffle and therefore Alun Michael (former DEFRA Minister for Rural Affairs) took over the responsibility for pesticides from Lord Whitty. I met with Alun Michael on December 17th 2003 to present the case regarding the resident and bystander issue.
- 50 The submission and video I put into the DEFRA Consultations was also submitted separately as evidence to a number of those advising the Government on this issue, including all members of the ACP.
- 51 On April 6th 2004, I made a formal complaint to Alun Michael in relation to the approach adopted by the ACP regarding this evidence. I explained that a number of ACP members had not seen the material, instead relying on a short summary report that had been prepared by the secretary of the Committee. **[I/432-433]**.
- 52 I subsequently pointed out that the report contained serious factual inaccuracies and that it was a completely unacceptable approach, given the nature of its content and the fact that the former ACP Chairman, Professor David Coggon, had repeatedly stated that the ACP needed to see the evidence of what is happening in reality for people living near sprayed fields. Therefore all the ACP members should have seen this material for themselves. **[I/432-433 and I/640-645]**.
- 53 The result of the Consultations on crop-spraying was announced by the former DEFRA Minister for Rural Affairs, Alun Michael, on June 16, 2004. He stated that on the basis of the scientific advice he had received from the PSD, the ACP and DEFRA's Chief Scientific Adviser, he was confident that the existing system provided full reassurance. However, he requested a study by the Royal Commission on Environmental Pollution (RCEP) to re-examine the scientific evidence on which the current regulatory system is based and the reasons for people's concerns. **[I/663-666]**.
- 54 As previously detailed to the Court in my original claim form dated 16.9.04, the DEFRA Consultation did not address the fundamental points of the case that had been presented regarding the resident and bystander issue. It turned into a self-fulfilling prophecy, as it was set up on the basis that the science was not in question and then determined by saying no new scientific evidence had been presented, despite the fact that this was never actually requested. **[II/32-51]**.
- 55 However, despite the fact that it wasn't requested, many members of the public, doctors, professors, scientists and others did provide scientific evidence to support their comments in favour of the proposals.
- 56 It was clear from looking through the Consultation submissions that the majority of the public, (excluding industry and farmers) did not see the risks as acceptable and questioned the claims made by DEFRA that the current system is robust and provides adequate protection to the public.

- 57 The principal aim of pesticide regulation is supposed to be the protection of public health, therefore this has to be the number one priority and take absolute precedence over any financial, economic or other considerations. However, the Government decided on a position that would largely maintain the status quo and protect chemical and industry interests over and above protecting public health.
- 58 During mid-2005 there had been another Government reshuffle and therefore Lord Bach (former DEFRA Minister for Sustainable Farming and Food) took over the responsibility for pesticides from Alun Michael. I met with Lord Bach on July 18th 2005 to again present the case regarding the resident and bystander issue. I questioned Lord Bach as to why the Government, and the ACP, were stating that no one should develop any *serious* illness or *serious* adverse effects through the use of pesticides when the EU Directive 91/414 EEC and UK equivalent legislation quite clearly states that a pesticide shall not be approved unless it has been established that “*it has no harmful effect directly or indirectly on human or animal health...*” Lord Bach said he couldn’t answer the question, and that he would have to check this point out.

The Royal Commission’s Report

- 59 The Royal Commission on Environmental Pollution (RCEP) officially opened its inquiry on 3rd August 2004, with its final report entitled “*Crop Spraying and the Health of Residents and Bystanders,*” published on September 22nd 2005. **[II/445-623; II/624-626 and II/627-630]**. The main written submission I made to the RCEP can be found at **[II/380-440]**. In contrast to the ACP’s approach (as detailed above in paras 50 to 52), all RCEP members saw both my videos in full. **[II/77]**.
- 60 The RCEP clearly acknowledged from the outset that the involvement, knowledge and expertise of people living in the environment of arable crops who actually have the direct experience of pesticide spraying and those reporting effects on their health and environment was absolutely critical in relation to the pesticides issue.
- 61 The RCEP clearly recognized my own personal expertise and knowledge on this issue as they first of all invited me to make a presentation on behalf of rural residents at their public meeting held on 25th September 2004. I then gave oral evidence to all the RCEP members on 2nd December 2004. Further to this, the RCEP also invited me to peer-review 4 chapters of the RCEP report. As far as I am aware this is the first time ever that a lay person has been asked to do this.
- 62 The RCEP agreed that there are serious inherent flaws throughout the existing regulations, as they identified grounds for concern in respect of all the areas they addressed, including health, exposure and risk.
- 63 The RCEP was highly critical of both the ACP and the regulators, the Pesticides Safety Directorate (PSD) and concluded that the level of confidence and assurance that had been given by the ACP to Ministers, as well as the public, regarding the

safety of residents and bystanders exposed to agricultural pesticides, '*represented too sanguine a view of the robustness of the scientific evidence.*'

- 64 The RCEP concluded that it did not agree that the evidence could lead to unequivocal conclusions, previously given by the ACP, that the system provides adequate protection and that there are no scientific concerns, or that it provides full reassurance to the Minister.
- 65 The RCEP questioned the independence of the PSD, which receives 60% of its funding from the agro-chemical industry, and suggested that the PSD's current structure seemed to be making health and environmental considerations subordinate to pest control.
- 66 The RCEP recommended that the reported ill-health effects need to be taken more seriously; that direct access to information and prior notification were needed; concluded that legal redress is virtually impossible and clearly acknowledged (as I had argued) that residents and bystanders are two different exposure scenarios.
- 67 There is no question that both residents and bystanders have suffered *acute* effects following exposure to pesticides, and the Government's own monitoring system, the Pesticides Incidents Appraisal Panel (PIAP), has confirmed cases from just one single exposure. Therefore, pesticides being able to cause acute effects was never in doubt.
- 68 However, it may be that the Royal Commission did not make this clear enough in the report or in subsequent comments in the media, which left it open to criticisms from some quarters that the RCEP had not found any evidence that pesticides do cause ill-health, which is not correct. On closer examination of the wording, where the RCEP refers to the plausibility of a link between resident and bystander exposure and ill-health, it actually states that it is in relation to chronic ill-health. (See paras 2.65 [II/482] and 6.20 of RCEP report [II/556]). Regarding acute effects, the RCEP stated "*The evidence from the residents and bystanders visited identified a series of well-defined acute symptoms immediately following pesticide spraying. These include upper and lower respiratory tract irritation, eye irritation, skin rashes, headaches and, in susceptible subjects, asthma attacks.*" [My emphasis]. [Para 2.9 II/465]. Following publication of the RCEP report I met with a member of the RCEP and one of the secretariat in November 2005. They both confirmed that the RCEP had fully accepted acute effects can be, and are, caused by pesticides, as they pointed out that the Government's own monitoring system confirms cases of acute effects from pesticide exposure, as referred to in paragraph 67 above.
- 69 Substantial evidence already exists linking pesticides to various forms of cancer, neurological diseases, asthma and birth defects, among other chronic conditions and these links have now been recognized by the European Commission. [II/746].
- 70 The total cost to the UK with regard to cancer, ME and asthma alone, is in excess of £6 billion per year. It is not known what proportion of the overall costs from damage

to health and the environment could be attributable to pesticides. However, the cost to the economy and society, as a whole, may well be substantial.

- 71 Obviously the personal and human costs to individuals suffering pesticide related ill-health cannot be calculated in financial terms. The significance of these consequences requires the adoption of a preventative approach, especially in relation to the protection of children and other vulnerable groups.
- 72 The RCEP report recommended the introduction of five metre buffer zones alongside residential property and other buildings, such as schools, hospitals and retirement homes, in an attempt to decrease the likelihood of spray drift affecting residents and bystanders. However, it should be noted that the RCEP's recommendation was in relation to spraydrift only (as referred to in paragraph 6.34 of the RCEP report). **[II/558]**.
- 73 Spraydrift is just one aspect of a much wider and more far reaching problem, as regardless of whether there is immediate drift or not, a farmer/grower will not be able to prevent pesticides, once they are airborne contaminants, from being in the air, as the particles and vapours will be impossible to confine within the treated area.
- 74 There is an extensive body of scientific evidence to show that pesticides can travel in the air and spread over vast distances.
- 75 For example, a scientific study in California found pesticides located up to three miles away from the treated areas, and calculated health risks for rural residents and communities living within those distances. (Lee *et al*, 2002)
- 76 Many pesticides commonly used in California have been detected far from the site of application, some as far as 25 to 50 miles. Studies in California consistently find pesticides in the air, rain and even fog, as a result of the repeated and frequent use and release of pesticides on a large scale in agricultural areas.
- 77 One study involving nearly 700 Californian women showed that living within a mile of farms where certain pesticides are sprayed, during critical weeks in pregnancy, increased by up to 120% the chance of losing the baby through birth defects. (Bell *et al*, 2001)
- 78 Another study found high brain cancer rates in people living near cranberry agricultural fields in Cape Cod, Massachusetts. Results showed that living within 2,600 feet of the cranberry growing area resulted in twice the risk for all brain cancers and nearly a sevenfold increased risk for a type of brain cancer known as astrocytoma. (Aschengrau *et al*, 1996)
- 79 A study published last year, that confirmed acute illnesses in children and employees from pesticides sprayed on farmland near schools, pointed out that a number of US states now require no-spray buffer zones around schools in an attempt to protect

children from exposure, including one state that has buffer zones of 2.5 miles. (Alarcon *et al*, 2005). [II/794-804].

- 80 These studies show that there is international scientific evidence supporting buffer zones of miles not metres.
- 81 Therefore, from the evidence that I have assessed, along with my own direct experience of this situation, small buffer zones would not be able to protect rural residents and communities from the overall and complex exposures they will be receiving as a result of pesticide spraying in the complete sense, (including all other potential exposure routes such as reactivation, precipitation, pesticides transported from outdoor applications and redistributed into an indoor air environment, pesticide residues transported on pollen or crop dust (eg. at harvest) and spreading of contaminated soil etc.) rather than exposure related solely to that of spray-drift.
- 82 I had a second meeting with Lord Bach (former DEFRA Minister for Sustainable Farming and Food) on January 11th 2006 to discuss the RCEP report and the Government action that was necessary to give people in the countryside the high level of protection they have the right to expect. During this meeting, I again questioned the lawfulness of the UK Government's approach/regime and its compatibility with EU and UK law.

The ACP's Response to the RCEP Report

- 83 On February 6, 2006, the ACP responded to the RCEP's criticisms of the ACP's approach, in what was in my view one of the most extraordinary documents to be published by a Government advisory committee charged with advising ministers, on the protection of public health. [II/673-719; II/722-723 and II/724-728].
- 84 The ACP report contains numerous factually inaccurate and grossly misleading statements and continues to make the same assertions that led to the RCEP's criticisms. The ACP relies on highly selective literature in an attempt to support its view that pesticide spraying is more of a social issue than a scientific one, and that any ill-health reported is likely to be predominantly of a psychological origin following an awareness of exposure.
- 85 Apart from being, I feel, grossly insulting and disrespectful to all those suffering ill health, whether it be acute or chronic, it is simply not the reality.
- 86 As I have informed the ACP (and in particular the former ACP Chairman, Professor David Coggon) many times, the majority of people who contact me did not know anything about being exposed to pesticides until long after they became ill and, therefore, they cannot be imagining or perceiving the ill-effects as being related to pesticides if they have no knowledge of any exposure.

- 87 It is interesting to note that the US study published last year, as referred to in para 79 above, and supported by the US Environmental Protection Agency (EPA), that confirmed acute illnesses in children and employees from pesticides sprayed on farmland near schools did not suggest anywhere that the ill-health effects reported could be due to perception, imagination, hysteria or of any other psychological origin. [II/794-804].
- 88 Considering the RCEP made firm statements that people reporting ill-health are genuinely ill, and that this was definitely not psychological, the ACP's continued reliance on this argument only takes the issue backwards and will continue to fuel the adversarial relationship between farmers, regulators and the general public.
- 89 It also misses the fundamental point. The principal aim of pesticide regulation is supposed to be the protection of public health, which is obviously based on the risk of harm and not that harm has to have already occurred. Therefore, individuals should not have to prove they are ill. The Government should not be exposing people to any risks. This is the fundamental point that tends to get overlooked with all the arguments regarding proof of causation.
- 90 The Government has previously acknowledged the need for a precautionary approach. For example, in written evidence, dated 20th October 2004, to the Environment, Food and Rural Affairs (EFRA) inquiry, DEFRA and HM Treasury clearly stated that, "*If there is scientific evidence that use of a pesticide may harm human health, that is considered unacceptable*". [II/378]. However, this approach is not being followed in current pesticides policy.
- 91 Section 4 of the ACP's Guidance document entitled "*A Guide to Pesticide Regulation and the Role of the ACP,*" includes an explanation of the legislation both in the EU and the UK. Under the section entitled "*The Scientific Assessment of Pesticides,*" it states "*The legislative framework...is designed with the aim that...(b) no one should develop any serious illness through the use of pesticides.*" [My emphasis]. [II/647].
- 92 In an article for the April 2006 edition of "*Outlooks on Pest Management*" David Coggon, the former Chairman of the ACP stated "*A major aim of pesticide regulation is that no-one should be made seriously ill through toxic effects of pesticides when they are used in accordance with the conditions of their approval. Ideally, there would be no adverse effects whatsoever, but achieving this would lead to major inconsistencies with other areas of risk management. For example, it would be unreasonable to ban a product because it caused occasional skin sensitisation in operators, when occupational exposure to other, more potent skin sensitisers such as epoxy adhesives is permitted. Similarly, unpleasant smells and minor and transient eye irritation may be tolerated, as they are when produced by, for example, the occasional bonfire.*" [My emphasis]. [II/811].
- 93 This calls into question the lawfulness of the Government and ACP's current approach. The EU Directive 91/414/EEC and the UK equivalent legislation (the Plant Protection Products (PPP) Regulations 2005) require that a pesticide shall not be

approved unless it has been established that it will not have any harmful effect on humans or animals. [II/126].

- 94 Therefore the current approach would appear incompatible with the precise and definite language used in both the EU Directive 91/414/EEC and the UK PPP Regulations 2005. The regulatory system is supposed to protect against any adverse health effects occurring from exposure to pesticides, not simply those that the regulators and scientific advisers deem to be ‘*serious*’ adverse effects.
- 95 I met with members of the European Commission (DG SANCO) in Brussels on 7th April 2006 and pointed out the interpretation being put by the UK on the language used in the Directive 91/414 EEC. They stated that they were not aware of any other Member States introducing the word “serious” to describe the requirement of the Directive that pesticides should not be approved unless it has been established that there will not be any harmful effect on human health. They stated that any acute effects, however minor, are not acceptable

The Government’s Response to the RCEP Report

- 96 Just prior to the publication of the Government’s response to the RCEP report, there had been yet another Government reshuffle and therefore Lord Rooker (DEFRA Minister of State (Lords) (Sustainable Farming and Food) took over the responsibility for pesticides from Lord Bach. As soon as he was appointed, I wrote to Lord Rooker to request a meeting to be able to present the case to him regarding the resident and bystander issue in the same way I had every previous Minister before him. However, my request for a meeting at that time was declined, which meant that prior to and on taking the decision regarding the Government’s response to the RCEP report, Lord Rooker had not heard directly from the very person who had raised the issue regarding the lack of regulation for residents, in the first place. [II/733-734].
- 97 I also wrote to David Miliband, who became the Secretary of State for DEFRA in the reshuffle. [II/787-789]. He too rejected my request for a meeting to hear the case/arguments presented and yet he has previously stated in writing to Tony Blair that “*We also need to maintain the confidence of people in rural areas that the Government understands their concerns.*” (This statement is made in a letter to the Prime Minister entitled “*My Priorities for DEFRA*” dated 11th July 2006 published on the DEFRA website).
- 98 The Government’s response to the Royal Commission’s report, published on 20th July 2006, has continued to demonstrate the Government’s clear commitment to protecting industry interests over and above protecting public health. [II/750-775; II/776-777 and II/778-781].
- 99 The Government yet again dismissed all the criticisms of the inadequacy of the existing policy; refused to acknowledge the health risks inherent in the spraying of agricultural chemicals; continued to maintain that the current system is robust; and

that this is merely an issue of “*perceived nuisance*,” and dismissed any link between pesticides and chronic ill-health conditions such as Parkinson’s, epilepsy, MS, cancers, birth defects, amongst others.

100 This is in stark contrast to the statement recently made by the European Commission on 12th July 2006 in relation to the new EU Thematic Strategy on pesticides, which acknowledged that, “*Long term exposure to pesticides can lead to serious disturbances to the immune system, sexual disorders, cancers, sterility, birth defects, damage to the nervous system and genetic damage.*” [II/746].

101 The Government has rejected the introduction of any new legislation/regulations (on prior notification, access to information, restrictions on pesticide use near homes, schools, workplaces etc.). Instead the Government has passed them all back to industry to deal with on a voluntary basis, which is exactly what it has been for 50 years, so this doesn’t actually realistically change anything. [II/750-775 and II/776-777]. Voluntary and self-regulatory measures have existed for decades, have not worked and are completely unacceptable in this situation. [II/778-781].

102 Farmers cannot control pesticides once they are airborne and therefore this problem is not really about the misuse, abuse or illegal use of pesticides, but about the legal widespread use and the overall exposure that residents and communities are receiving in totality, (which includes exposure to particles, vapours, pesticides on pollen etc.) These types of exposure factors are all out of the control of farmers and can only be prevented by changes to existing policies that focus on eliminating exposure.

103 DEFRA Ministers requested the RCEP inquiry in order to give an independent view of the adequacy of the scientific evidence that DEFRA had based its decision on regarding the risks to people from pesticides. For DEFRA Ministers to have dismissed the RCEP’s conclusions of the inadequacy of the current policy and of the Government’s science and scientific advisors, and merely rely on those very same scientists again (ie. the ACP) would appear to defeat the object of requesting the RCEP study in the first place and again as per the DEFRA/PSD Consultations, seems an absolute waste of taxpayers money and of the time and effort of all those who submitted evidence and information to the RCEP.

104 There appeared to be no real acknowledgement in either the 2003 DEFRA Consultations or the Government’s response to the RCEP report of the impact on rural residents and communities from crop-spraying activities, which includes impacts on their health, environment, as well as costs and other financial implications.

105 I met with Lord Rooker, on 31st July 2006, to *finally* present the case/arguments regarding the failure to protect residents, however, this was obviously after the Government’s decision had already been made and the response published. Despite repeated assertions from DEFRA officials that Lord Rooker was aware of the case I had presented prior to the Government’s response, I found no evidence of this during

the meeting. For example, he did not appear to be aware of my fundamental argument that there has never been any risk assessment for residents, who have a completely different exposure scenario to that set out for a bystander and therefore that residents and bystanders are two separate groups. In relation to the Government's response to the RCEP report, Lord Rooker stated that there isn't any scientific evidence that the illnesses reported in the countryside are caused by pesticides. I asked Lord Rooker if he would have taken action based on scientific evidence that use of pesticides *may* harm human health. Lord Rooker stated "No." I then pointed out that this did not appear in line with the statement previously made by DEFRA (and HM Treasury) to the EFRA inquiry in 2005, (as detailed above in paragraph 90) that stated, "*If there is scientific evidence that use of a pesticide may harm human health, that is considered unacceptable*". [My emphasis].

106I have also recently met with the EU Commissioner for Health, Markos Kyprianou on 5th September 2006 and at this meeting, as well as the aforementioned one with Lord Rooker, I pointed out that the UK Government's approach appeared incompatible with EU legislation on a number of counts as detailed fully in the amended grounds. [II/783-786].

Decades of Government Inaction

107The UK Government's response on this issue has been of the utmost complacency and is completely irresponsible.

108There has now been over 50 years of documented scientific and medical evidence in relation to the dangers of pesticides, the risks inherent in their use and the acute and chronic long-term ill health effects that can result following exposure.

109Prior to the RCEP report, a number of previous official reports had also warned of the dangers of pesticides and heavily criticized the existing regulations and monitoring system for being wholly inadequate. These included the highly regarded British Medical Association's (BMA) 1990 report '*Pesticides, Chemicals and Health*' and the Commons Agriculture Select Committee report in 1987.

110Both reports concluded that none of the Government agencies involved with pesticides had made any serious attempt to gather data on the chronic effects of pesticides on human health.

111Despite the recommendations that both of these reports made, the situation has not changed, as successive Governments have just continued to deny the evidence.

112Due to inherent uncertainties, serious data gaps and fundamental flaws in the current risk assessment processes and monitoring systems there does not appear to be any evidence to support DEFRA's claim that pesticides are safe and that there are no health risks to people in the countryside from crop-spraying. Therefore there is no evidence that the clusters of acute and chronic long-term illnesses and diseases that are being reported in rural communities are not related to pesticide exposure.

- 113 This cannot be allowed to continue for the next 50 years. Many of the conditions that are reported in rural areas, including cancer and leukaemia, are devastating diseases that are on the increase, especially in children, and even though there could be a number of different causes for any chronic illness or disease, all the causes must be identified in an attempt to try and prevent them from occurring.
- 114 Pesticides that were approved for use for decades and declared safe have since been banned, as they were subsequently recognized as having damaging effects on human health and the environment.
- 115 There have been many parallel examples where the UK Government and its advisers continued to deny the existence of a problem only to have to issue subsequent retractions, along with a ban on the substance, at a later date. One of the most significant of these is in relation to asbestos related diseases.
- 116 A report published in 2004 stated that 3,500 people die each year as a result of exposure to asbestos, and that this figure is expected to rise to over 10,000 people a year in the next decade. These deaths, and those yet to come, could have been avoided if the early warning signs, going back many decades, had been adhered to and the immediate and appropriate action taken.
- 117 Another example is the Government's approach to smoking, as despite the fact that the medical evidence on passive smoking had been around for decades, it is only now that the Government has finally made the proactive decision to introduce preventative measures to protect people from second-hand exposure to cigarette smoke.
- 118 However, the tobacco industry, like the pesticides industry, continues to maintain that the evidence is only circumstantial, that there is no definite proven link, and simply calls for further research. David Michaels, a professor at the George Washington University School of Public Health, has called this approach '*the art of manufacturing uncertainty*'. In an article last year for the Los Angeles Times he stated: "*Every polluter and manufacturer of toxic chemicals understands that by fostering a debate on uncertainties in the underlying science and by harping on the need for more research – always more research – it can avoid debating the actual policy or regulation in question*".
- 119 A recent US study that highlighted the neuro-developmental effects of pesticides concluded that a new regulatory approach for pesticides is needed, and that the uncertainty that accompanies scientific research cannot be allowed to serve as an impediment to protective actions. (Colburn, 2006)
- 120 The Government's recent decision to ban smoking in public places has now created a clear mismatch and inconsistency with its failure to ban crop spraying in rural areas in order to protect people from passive exposure to pesticides.

121The use of pesticides and other hazardous chemicals has resulted in devastating consequences for public health, animals, wildlife, air, water, soil, food and the wider environment. This has massive economic and financial implications for all parties (with the exception of the pesticide industry) that are impossible to quantify.

122The UK Government has failed to act to protect residents (or those attending school near sprayed fields, working in offices, hospitals or other buildings near sprayed fields and thus exposed over the longer term and not merely a passing bystander etc.) This is of greatest concern in relation to lack of protection for babies, children and other vulnerable groups. (It is not uncommon for a child to live near sprayed fields and attend school near sprayed fields as well, which obviously increases the level of exposure to an even higher level).

123Finally, I would like to point out to the Court that I have been astonished at the Government's complacency and absolute inaction over this issue since I first started presenting my case/arguments at the beginning of 2001. As stated in paragraphs 50 to 52, Professor Coggon, (the former Chairman of the ACP), in particular, repeatedly stated that the ACP needed to see what was happening in reality to check if the current system was working. Yet when I provided that evidence and information, it was only seen in full by a small handful of members and the ACP subsequently dismissed its content. In stark contrast, RCEP members all saw the video/material in full. The RCEP recommended in their report that the ill-health effects reported by residents and bystanders need to be taken more seriously by Government advisors and regulators.

124However, the fact that neither the Secretary of State nor the DEFRA Minister responsible for pesticides, Lord Rooker, saw it necessary to hear the case/arguments presented on behalf of rural residents in the UK *prior* to making a decision that has far reaching impacts on rural residents and communities is an absolute disgrace and shows a complete disregard for protecting public health.

125The European Commission has recognized very clear long-term health impacts and yet the British Government appears to be in denial that these impacts exist. **[II/746]**.

126I would add that I have had a number of articles published about my campaign, in a range of publications including the April 06 edition of *Outlooks on Pest Management*, **[II/805-810]** the June 06 edition of *Interaction*, the journal of the charity Action for ME (AFME), **[II/814-818]** the most recent edition of *icon* Magazine, produced by the charity CANCERactive, as well as the Spring 2005 edition of *Science in Parliament* Magazine. One example, an article in the August 06 edition of *Positive Health* magazine is exhibited hereto as **GD/3**.

127I have also been nominated for a number of awards as a result of my work on this issue. In March of this year, I won the Andrew Lees Memorial Award at the 2006 British Environment and Media Awards; I was nominated as Campaigner of the Year

in the Observer Ethical Awards 2006 and I am a nominee in the Campaigning category of the Great Britons Awards 2006, amongst others.

128The Government, its agencies and scientific advisors have a legal duty to protect public health and, despite all my efforts over the past five years, this is not happening with the existing Government policy on pesticides. Accordingly, I ask the Court to grant me permission to apply for judicial review and, subsequently, the relief sought in the Amended Grounds dated 20th October 2006.

129I believe that the facts stated in this witness statement are true.

Dated: 22nd October 2006

Signed:

Georgina Downs