The contaminated land regulatory regime has always been difficult in terms of its monitoring and enforcement. (Bell & McGillivray, 2008: 548) It is a complex 'twofold process' (Syms, 1997: 28) whereby remedial works for land already contaminated and appropriate measures as to minimise future contamination are considered. Having a definition that is 'not straightforward' (DEFRA, 2012) contributes more to the problem. The term 'contaminated land' is often conceived to 'cover different situations of varying degrees of seriousness' (Thomas & Clarke, 2000: 17), such as 'heavy metals', 'oils and gases' to 'chemical substances' (Gov UK). Its statutory definition (Environmental Protection Act 1990: Part 2A) as supported by a recently revised Guidance (DEFRA April 2012 Contaminated Land Statutory Guidance – hereafter as 'Guidance') defines 'contaminated land' as land where substances can cause 'significant harm' (or possibility of causing) to humans and 'significant pollution of controlled waters'. Although the revised Guidance is *shorter* and intends to be *more* user friendly, it does not add much to 'simplification of the designation procedure' (Barlow, 2012). However, introduction of a new categorisation process and an expert panel by the Guidance do seem to add some clarification to the regime. Thus, the essay purports the Guidance as a mere 'fine-tuning the existing regime' (DEFRA, 2012). Through critical analysis of provisions of the Guidance, it shall demonstrate how the Guidance does not have major beneficial practical impact on the regime and is no less easy to apply.

The lack of proper 'regulatory resources and operational complexity' (Vaughan, 2010: 142) have made regulation of the regime difficult. Firstly, local authorities (hereinafter as 'L.As') are required under Guidance to inspect and determine whether a land is 'contaminated'. To add further confusion, the regime is of a 'retrospective liability' (Barlow, 2012) nature, meaning it deals with historic operations of the land from decades ago, even before any relevant legislation was imposed. A report (Local Authorities, 2009) on an overview of progress in identifying and remediating contaminated land indicated slow progress. This is due to the problem that arises when LAs explore a "pollution linkage", which involves finding a pathway of the source of pollution that harms a target known as a receptor, when determining whether a land is 'contaminated'. The 'pollution linkage' must cause a 'significant' harm. Assessing whether there is a significant possibility of significant harm (SPOSH) or significant pollution of controlled waters (Barlow, 2012) poses as another problem, as DEFRA admitted it being 'inherently difficult' to establish causality and instances where science-based evidence have shown the possibility of some sites having 'significant risks from long term exposures'. (Jowit, 2012)

As a result of that, the Guidance has introduced a 4 categorised system. Any land classified as Category 1 means there is an unacceptably high probability of SPOSH or significant pollution of controlled waters. (DEFRA, 2012) Category 4 indicates low level of risk, or even no risk at all. However, it is noted that many cases would not fill into these categories due to 'inconclusive evidence' or 'uncertainty of the state of scientific

knowledge'. (Barlow, 2012) They would instead fall into category 2 (capable of being 'contaminated land') or category 3 (not capable of being 'contaminated land).

It is worth noting that the starting point under the Guidance states that land is not considered to be contaminated 'unless there is reason to consider otherwise'. (DEFRA, 2012) This encourages focus to be on high risk sites. It grants more freedom for Local Authorities to 'eliminate low-risk sites' (reduces number of sites to inspect), and lower the 'remediation burdens' placed on land owners (who are on the margins) on these 'cash constrained times'. (Barlow, 2012) It seems like a justified effort by the Government to efficiently speed up the process of identifying lands that are considered to be of 'significant risk'. It will make construction on land contaminated by 'industrial pollution or even asbestos' easier than before. (Jowit, 2012) This ultimately defeats the objective of the revised Guidance, as it brings negative consequences like less concern on health impacts. Thus, a reasonable balance must be struck between 'identifying and removing unacceptable risks' (Part 2A of EPA 1990) and the environment, while ensuring burdens faced by individuals and companies are proportionate. This is not easy when a complicated regulatory regime is involved. The case below demonstrates the complexity of procedures involved.

1) Case Study: Brofiscin Quarry

This concerned a quarry which had been used for various purposes such as landfill in the 1960s. It was then designated as a 'special site' (s.78B (1) – sites where Environment Agency have expertise to act on) in 2005. It is worth mentioning that disagreements between local authorities and the Environmental Agency (hereinafter as 'EA') on the designation of 'special site' could sometimes delay the procedures. (Thomas & Clarke, 2000: 93)

Initially, an elderly lady was targeted as potential 'appropriate persons' for the remediation costs, merely because she owned the land. This is the standard procedure (notification of 'appropriate persons') after a 'contaminated land' has been established by LAs or EA. Generally, there are two classes of 'appropriate persons', the first one (Class A persons) being persons who 'caused or knowingly permitted' the contamination, whereas Class B persons tends to be people with interest in the property (current owners/occupiers) (EPA 1990, s. 78 (2)). This procedure is known for placing liability on 'shoulders of those who own or occupy a property' – Class B persons, (Lawrence & Lee, 2003) as observed in this case. This is the 'strict liability' approach behind the regime in practice, as opposed to 'polluter pays' principle claimed by DEFRA. (Lee & Vaughan, 2010: 42) Remediation responsibilities could arise without any breach of law, and this seems unfair to 'innocent' parties that did not contribute to the pollution.

Fortunately, two other potential 'appropriate persons' were identified and bore the remediation costs in this instance, which went up to £1.5M. Apart from being a

'shock' (Barlow, 2012) to most who receives notification of being 'appropriate persons', it also creates financial hardship to homeowners (Lees, 2012: 101), which is unacceptable in a regulatory regime. Despite this, LAs have reassured (ADC, 2006), stating 'remediation costs will normally fall to '[Class A persons]'. In absence of Class A person, the costs are being borne by LAs themselves. (Lees, 2012: 101) In *R (National Grid Gas Plc.) v Environment Agency*, the EA covered all costs of remediation, preventing hardship to be suffered by Class B persons.

Issues derived from the case study above suggest that current approach to the regime is neither 'efficient' nor 'cost-effective'. (Lees, 2012: 104) It took six long 'tortuous' years to ascertain the liability in Brofiscin Quarry, and it was 'by no means exceptional'. (Barlow, 2012) Having already spent a considerable amount of time and a huge of sum of £45 million on the regime, some LAs, such as the one in *National Grid Gas*, still end up 'paying for the clean-up' (Vaughan, 2010: 8). With limited financial resources available, this means that LAs cannot afford to look for more contaminated land. (Lees, 2012: 105) Thus, a 'well planned investigation' would provide a good insight into the problems and risks associated with contaminated land. (Syms, 1997: 158) The section below reviews the difficulties in the risk assessment approach of the regime.

2) Review of Risk Assessment procedures

It has been suggested that using 'risk assessment' as part a remediation strategy will undoubtedly produce 'professional judgments' beneficial to the regime. (Thomas & Clarke, 2000: 34) The revised Guidance has defined 'risk to be a combination of "(a) likelihood that harm or pollution will occur as result of contaminants on land; and (b) the scale and seriousness of such harm/pollution if it did occur."(Barlow, 2012) Soil Guideline Values (SGV) provided by EA is supposed to be 'key to undertake risk assessment and to decide when land contamination constitutes SPOSH' (Vaughan, ref69). However, there are only a 'limited number of SGVs' available. (Vaughan, 2010: 154) Thus it has been criticised by The Chartered Institute of Environmental Health for not being particularly useful. (Jowit, 2012) Risk assessment is a difficult technical process due to the lack of proper scientific understanding of potential effects of the contaminated substances on the environment and human health. It is no surprise that this area still remain uncertain now. (Vaughan, 2010: 150) As technology advances, our knowledge on the risks and effects of certain substances will also change. This will then impact the thresholds for intervention. (ibid: 154) Moreover, the fact that SGV is a non-binding guideline, due to insufficient resources of the LAs to enforce the regime (ibid: 150) make the SGV less certain and clear.

Consequently, it would be wise to consider help of 'external environmental advisers' (Thomas & Clarke, 2000: 52) as most LAs lack the internal expertise in this

field. DEFRA (2012(B)) indicated that an expert panel would be set up to assist LAs in assessing risk. The performance of this expert panel is yet to be seen, and it is important to note LAs have the final say on this matter. Furthermore, the Guidance has required LAs to produce a 'risk summary' which contains understanding of the risks, uncertainties and views on possible remediation (Barlow, 2012). Muller (2010) has encouraged having 'sustainable' measures in the remediation strategy to ensure long 'lasting effects' of enhancing the environmental status of a site. This is welcomed by the Sustainable Remediation Forum. (SuRF, 2011) A research (Doberl et al., 2013) has introduced 'a goal-oriented sustainability assessment method' as way of improving the complexity of risk assessment. It is true that no two sets of circumstances affecting contaminated land would be identical. (Syms, 1997: 166) With careful planning, it is possible to undertake sufficient measure to ensure a 'reasoned' assessment.

3) Judicial Involvement

It is possible that involvement of the judiciary would bring a sense of justice to the complex regime. However, there have only been 'three higher court decisions' (Vaughan, 2010: 151) brought under the Part 2A contaminated land regime. This may reflect the relatively slow progress made in identifying and cleaning up contaminated land in the UK since the regime came into force. Bringing this regime to the courts will allow areas of uncertainty to be clarified. (Thornton, 2009)

In *National Grid Gas,* the critical issue was whether liabilities of predecessor that happened "immediately before" the transfer date would be transferred to the successor under statutory transfer schemes. The Lordships criticised Part 2A for being unambiguous, and held that Part 2A does not create a 'deemed past liability for those acts', and thus the liabilities could not pass. (ibid, 2009) This provided for some sense of clarity.However, the decisions of the House of Lords' in *National Grid Gas,* and High Court in *Circular Facilities* have only provided minimal judicial clearance on areas of the regime. This is due to the 'lack of engagement' of the judiciary with Part 2A. As discussed above, LAs have encountered similar difficulties with this complex regime, especially with their 'interpretations of the legal drafting' of Part 2A. (Vaughan, 2010: 151) These uncertainties do not only cause problems to the regime, but also slows down its progress.

There are times when the court might not intervene with contaminated land problems. In the case of *Cambridge Water Co,* Lord Goff has stated 'it is more appropriate for strict liability in respect of operations of high risk to be imposed by Parliament, than by the courts.' However, it is arguable that Court has sometimes provided clear authority over certain issues, such as finding 'appropriate persons' and placing liability on them. Lord Scott stated that, 'polluter should pay and that innocent owners or occupiers of contaminated land should not have to pay.' This served as a guidance to help clarify EA's decisions on not recovering from Class B persons in certain

situations. (Lees, 2012: 104) The fact that the court took this approach helps to justify EA's actions. It is important to have more court's involvement with Part 2A, as it will certainly help to provide certain degree of concentre authority to this complex regime.

4) Policy Reasoning

It is important to consider the government's concern for the regime, as the decisions they make affect our daily lives. Government's policy reasoning states that 'recycling land helps protect the countryside and enhance its quality rather than creating urban sprawl' (DCLG, 2008). Thus, the revised Guidance published last year reinforces 'efficiency', focused 'efforts on finding high-risk sites' which in turn speeds up 'decision processes (Barlow, 2012). This makes it easier for developers to build on contaminated land, due to the newly improvised 4 category SPOSH system (from the Guidance). It has an implication of less land being investigated. The aim is to reduce the burden of local authorities in investigating too many possible sites, when they are faced with limited resources.

Shadow Environment Secretary, Mary Creagh, has criticised the government's proposals for being 'out-of-touch' with environmental and health concerns (Jowit, 2012). However, DEFRA denied that the revised Guidance would weaken protection of public health, stating its 'intention is to reduce the burden of regulation rather than the environmental outcomes they are designed to achieve' (Jowit, 2012). However, as Lees (2012) mentioned, the complexity of the regime is not 'simply a matter of semantic argument, but has public health implications and negative implications for biodiversity and the protection of natural habitats.' It is hard to justify the balance between a need for more development of land and increasing awareness of health concerns of humans.

5) Possible Changes?

It is important to realise that the contaminated land regime was introduced through a government consultation, "*Paying for our Past"* (Hansard, 1994), to ensure 'moral responsibility' is taken into account while 'tackling historical pollutions'. A report (DCLG, 2007) shows that 75% of residential housing in the country is built on contaminated land. According to Vaughan (2010), all necessary determinations would only be completed by 2044, considering the current "speed" of the regime.' Thus, it would make sense to call for change now, and amend the existing complexities for the sake of future generation. Even, Lord Goff in *Cambridge Water case* has called for legislation to enforce moral duty to clean up land. Similarly, John Gummer (Hansard, 1994) voiced concerns for future generation in House of Commons.

It is also possible to introduce the principle of stewardship, as it will enforce responsibility of owners and occupiers of land to look after their land. This not only

complements the polluters pay principle (tied in this regime), but also 'sweep up harm unaddressed by other regulation' (Lee, 2009: 265). Nevertheless, its effectiveness can only be determined once it has been put into practice.

Conclusion

This essay has discussed and reviewed the complexities of the contaminated land regime, along with the revised Guidance with supported evidence from cases. The existing procedures of designation of contaminated land are 'costly and time consuming' (Barlow, 2012). Finding liabilities through historic pollutions is never a straightforward task. Local authorities are notable for having to 'foot the bill' (remediation costs) themselves. As a result, it is arguable that there will be fewer inspections carried out on land due to the SPOSH system. Although this ties in with the government's intention to reduce burdens on the enforcing authorities, it undermines potential detrimental effects of contaminants to human health and environment. Fighting the apparent struggles that are 'contaminated' (DEFRA, 2008) within its own regime is not easy. Perhaps certain changes are necessary to exploit the 'polluters pay principle' that this regime is based upon on. With careful and concise planning, it is possible to devise a better Guidance to deal with the complex nature of this regime.

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