Abstract:
Contaminated land is an environmental problem that causes great concerns among the general public, landowners, occupiers, investors and financial institutions. Apart from human health issues, contaminated land may lead to legal and financial liabilities to the party concerned. Despite the negative image of contaminated land, valuers are from time to time instructed to assess its market value. In this regard, valuation institutions in most developed countries have prepared a practice standard to help members report on contaminated land.

Each country has its unique socio-economic background. The various practice standards will no doubt reflect the respective conditions in their country and the reporting standards will be different. Thus, it can be inferred that there is a substantial difference in the reporting standards between highly industrialised countries and less industrialised countries. This paper intends to find out, against this inference, if there exists a uniform approach towards reporting on contaminated land in the practice standards. The UK is a highly industrialised country and Australia is a less industrialised country. For the purpose of this paper, practice standard in the UK and Australia are used for the study. The paper will conclude if a uniform approach exists and if the practice standard in a less industrialised country is less stringent than the practice standard in a highly industrialised country.

Introduction
The urbanisation process around the world has caused a huge demand for urban land. In all cities, there is contaminated land for various reasons. In particular, industrialised cities tend to have more contaminated land. Contaminated land used to be regarded as a liability to the owner because of the potential human health risk, impacts on the environment, financial and legal liabilities. This view has been
gradually changed in recent years. The market is increasingly aware of the possibility of remediating contaminated land and turning it into a valuable asset (Chan, 2000, API 2001). The increase in demand for contaminated land makes it necessary for landowners, investors and developers to know the value of contaminated land. Valuers are more often than before called upon to carry out valuation of contaminated land.

Professional institutes of valuers/appraisers around the world, such as the Australian Property Institute (API, 2001), Appraisal Institute of USA (Appraisal Institute, 1997), Appraisal Institute of Canada (Pedersen, 2003), and Royal Institution of Chartered Surveyors (2003a, 2003b), have published practice standards or guidelines to help members to understand contaminated land issues and report on contaminated land valuations. As each country has its unique socio-economical characteristics, these reporting standards/requirements of contaminated land valuation may not be the same. Sym's and Weber (2003) have compared international approaches to the valuation of land and property affected by contamination and have found many similarities in the techniques adopted. In some cases the approaches have been highly theoretical whereas others are based on more factual information however a common thread is the lack of transparency in property data relating to contamination and environmental issues.

This paper seeks to ascertain if there exists a uniform approach towards reporting on contaminated land in the practice standards. Since it is not possible to study all practice standards around the world in this paper, the practice standards in Australia and the UK are adopted for a comparative case study. The UK is a highly industrialised country and Australia is a less industrialised country. The paper also tries to find out if the practice standard in a less industrialised country is less stringent than the practice standard in a highly industrialised country.

**Practice standard in Australia**

In Australia, formal guidance on contaminated land valuation was first published in 1994. In that year, the Australian Institute of Valuers and Land Economists (now the Australian Property Institute) published the *Contaminated Land Practice Standard* to give members background information about land contamination issues and suggest approaches for contaminated land valuation. This document was subsequently replaced by “Guidance Note 15 Contaminated Land Valuation” of Professional Practice 1999, “Guidance Note 15 Reporting on Contaminated Land” of Professional Practice 2000 and “Guidance Note 15 Reporting on Contaminated Land” of Professional Practice 2002 from the Australian Property Institute.

It is noted that the document has been downgraded from a practice standard to a guidance note. As stated in the Professional Practice 2002, “[p]ractice standards have mandatory status. They are in effect rules that Members must comply with (subject to the right to justify departure), to the extent that they are applicable to a particular professional task or assignment.” In contrast, guidance notes do not have mandatory status. They are “intended to embody recognised ‘good practice’ and therefore may (although this should not be assumed) provide some professional support if properly applied.”
The reasons for the downgrading of the status are not given in the document. Perhaps it may be due to the fact that contaminated land valuation is a complex issue. The current Guidance Note 15 points out that “[m]any issues of land contamination are poorly defined and involve complex or unresolved matters … The appropriate procedures will vary according the circumstances of each property being valued or assessed. Members should apply their own skill and judgement in applying the information contained herein to their own practice.” Accordingly, requiring members to follow a mandatory practice standard may cause hardship and impose unfair burden on members.

The current “Guidance Note 15 Reporting on Contaminated Land” has 19 pages containing 10 parts and 7 appendices. The 10 parts cover the following areas:

1. Introduction
2. Types of contaminants and examples
3. Identifying and quantifying contamination
4. Remediation practices and techniques
5. Impact on value: general areas of cost impact
6. Assessment and valuation approaches
7. Potential problems for lenders
8. Legislation
9. Indemnity insurance
10. GST caution

The 7 appendices cover the following areas:

1. United Nations hazard classes
2. Potentially contaminating activities, industries and land uses
3. Suggested environmental checklist
4. Sample environmental balance sheet
5. A method of assessing stigma
6. Environmental legislation in Australia
7. Internet address of environmental protection authorities in Australia

As can be seen, the coverage of the document is fairly wide. Basically the different parts can be classified into two groups. The first group is about the expected knowledge of valuers about the types of contaminants, site inspection techniques, remediation techniques, possible legal and financial responsibility of contaminated land, and valuation approaches. The main points in this group are summarised in Table 1 in the section “Comparison of guidelines/practice standards” below.

The other group is about contents of the valuation report. The document points out that it is not the best practice for a valuer to disclaim liabilities by stating in the valuation report that the valuation was prepared without regard to the question of presence of contamination. Valuers need to address the concern of client about real or potential contamination. Apart from commenting on site inspection findings, information from environmental specialists, impacts on present and future income, and impacts on current and future land uses, etc., valuers may also mention in the report the types of contaminants, the remediation techniques and possible legal and financial responsibility of contaminated land. However they should avoid giving
clients an impression that they are an expert in site or other contamination. The expected contents of a contaminated land valuation report are summarised in Table 2 in the same section.

Apart from ‘Guidance Note 15’, the Professional Practice 2002 also highlights the importance of contaminated land issues in ‘Instructions To The Valuers’ and ‘Report Content’ of the chapter ‘Client Focus’. Under the provisions of supporting documentation, clients are expected to provide a copy of environmental assessment report or other environmental documentation in their possession that may affect the value of the property to the valuer. Under the report content provisions, the valuer should report the existence of any past, current or potential environmental hazard or contamination.
Practice standard in the UK
The RICS guidance note Contamination and Environmental Matters Their Implications for Property Professionals (RICS, 2003a) was first published in 1997 (RICS, 1997) with the current edition representing a significant revision to the earlier edition. The former version contained 7 sections and 6 appendices whereas the current edition is a much larger and more highly comprehensive document covering a vast range of information related to contamination and environmental matters. One of the principal differences between the two editions is the greater emphasis placed on the roles and functions of chartered surveyors when dealing with issues relating to valuation, building surveying, commercial property agency, property development, property and estate management. While the roles and functions of the valuer are specifically addressed in chapter 4, the guidance note is framed to offer advice to a much wider group of land, property and construction professionals. In this respect there is a greater thematic treatment of issues related to contamination and environmental matters compared with the earlier edition. Consequently the valuer has to navigate both the generalities and the specifics of the guidance note in applying it to the valuation function.

The current guidance note comprises 116 pages and contains 10 parts and 9 appendices. The 10 parts cover the following areas:

1. Introduction
2. Understanding the law
3. Identifying possible contamination: the surveyor’s role
4. Valuation and contaminated land
5. Building surveying
6. Commercial property agency
7. Property development
8. Property and estate management
9. Risk assessment, site investigations and the services of other professionals
10. Reflecting specialist’s reports.

The 9 appendices cover the following areas:

(a) Selected legislation and official guidance
(b) Glossary of environmental terms
(c) Property observation checklist (commercial and industrial)
(d) Rural property observation checklist
(e) Residential property observation checklist
(f) Regulators and regulatory bodies
(g) Environment Agency notice
(h) Contaminated land warning card and leaflet
(j) Further information.

The RICS guidance note cautions that the majority of chartered surveyors will not have the specialist skills, competencies and professional indemnity insurance to advise on all aspects of investigation, testing and analysis involved in the assessment of contaminated land and environmental matters. Nonetheless the revised guidance note accepts that chartered surveyors cannot ignore the existence and effects of contamination given the evolution of environmental knowledge and legislation and
the valuation response to these developments as contained in the RICS *Appraisal and Valuation Standards* (RICS, 2003b)(the Red Book).

RICS bye-law 19 (5) requires its members to comply with all relevant practice statements approved and published by or on behalf of the governing council or a national association. Compliance with the Red Book is therefore mandatory for members of RICS and also members of the Institute of Revenues, Rating and Valuation (IRRV). The practice statements apply to valuations and to assessments of worth. They do not apply to valuations for certain defined purposes, which are: advice given during the course of litigation, arbitrations and summary disputes; advice given during negotiations; internal valuations; certain agency or brokerage works; and development schemes.

The Red Book sets out the requirements in respect to the possibility that a subject property may be contaminated and with regard to reporting on the consequences and the affect on value. Appendix 2.2 provides information and guidance on assumptions to be made by the valuer concerning contamination and environmental matters. In relation to the former it is acknowledged that valuer will not normally be competent to advise on whether the nature, or risks, of contamination or hazardous substances, or any costs involved with their removal. The RICS refers to surveyors with specialist knowledge and expertise to investigate contamination as ‘chartered environmental surveyors’. However, where valuers have prior knowledge of the locality and experience of the type of property being valued, they can reasonably be expected to comment on the likely impact of contamination on the value and marketability of the property. It will therefore be necessary for the valuer to state the limits on the investigations that will be undertaken and any information or assumptions that will be relied upon.

Environmental factors that are an inherent feature of the property itself or the surrounding area may impact on the value of the property interest. Examples include historic mining activity or electricity transmission equipment. Although detailed commentary on their effects will normally be outside the realm of the valuer’s expertise, their actual or likely presence may often be established from the valuation inspection or through normal enquiries or local knowledge. The valuer should state the limits that may apply to the investigations, and the assumptions made in relation to environmental factors.

RICS Red Book GN 1.1 (paragraphs 9.1 and 9.2) acknowledges that contamination can be caused by a wide variety of activities, and is not simply confined to areas that have been used for heavy industrial processes. Few valuers will have the knowledge or expertise to advise on the extent and nature of contamination or appropriate remedial works however they need to be aware of the causes and symptoms of contamination. They also need to alert clients if they believe that contamination could have a significant impact on the valuation, and agree with the client the assumptions which should be made in completing the valuation and included in the report.

Contamination and environmental factors which are visible during the course of an inspection should be recorded in the relevant property observation checklist. They should be brought to the client’s attention and the valuation should reflect these circumstances. Although failure to follow the guidance note will not, in itself, result in
a negligent valuation, valuers will be guilty of a breach of the RICS Code of Conduct, where they fail to comply with the practice statements in the Red Book.

Comparison of guidelines/practice standards
The guidance notes in Australia and the UK cover essential information about contaminated land and valuation issues. While both documents have guidance note status, the API document applies to valuers only. The RICS document, on the other hand, applies to a wider group of land, property and construction professionals, in addition to valuers. Table 1 summarises the expected knowledge and involvement of valuers in contaminated land valuation.

Table 1  Expected knowledge and involvement of valuers

<table>
<thead>
<tr>
<th>Items</th>
<th>Australia</th>
<th>UK</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of common contaminants and hazardous substances</td>
<td>GN 15:2.0</td>
<td>GN1.6, 2.3</td>
<td></td>
</tr>
<tr>
<td>Potentially contaminating activities, industries and land uses</td>
<td>GN 15:2.0</td>
<td>GN 1.6, 2.4</td>
<td></td>
</tr>
<tr>
<td>Checking historic land uses</td>
<td>GN 15:3.0</td>
<td>GN 3.4.12</td>
<td></td>
</tr>
<tr>
<td>Detection and preliminary identification of discoverable contamination</td>
<td>GN 15:3.0</td>
<td>GN 3.3</td>
<td></td>
</tr>
<tr>
<td>Inspection of contaminated land register</td>
<td>X</td>
<td>GN 3.4.9</td>
<td>In the UK there is no contaminated land register</td>
</tr>
<tr>
<td>Take detailed field notes</td>
<td>GN 15:3.0</td>
<td>GN 3.3</td>
<td>Property observation checklists are provided in both documents</td>
</tr>
<tr>
<td>Understand various remediation techniques</td>
<td>GN15:4.0</td>
<td>GN 4.3.2</td>
<td>In the UK, no explicit requirement for valuer to understand remediation techniques</td>
</tr>
<tr>
<td>Keep record of remediation cost</td>
<td>GN 15:5.0</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Understand legal liability, impact of ‘polluter pays’ principle</td>
<td>GN 15:5.0</td>
<td>GN 2.1, 2.3.13, 2.10</td>
<td></td>
</tr>
<tr>
<td>Understand impacts of contamination on value</td>
<td>GN 15:5.0</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Understand causes of market value loss</td>
<td>GN 15:5.0</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Understand impacts of various costs – remediation cost, indirect cost, legal cost, containing cost</td>
<td>GN 15:5.0</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Understand impacts of stigma</td>
<td>GN 15:5.0</td>
<td>GN 4.3.2</td>
<td>Valuation should take account of market perception impact</td>
</tr>
<tr>
<td>Understand market perception</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 below summarises the necessary information that are required to be included in a valuation report.

Table 2 Relevant information in contaminated land valuation reports

<table>
<thead>
<tr>
<th>Items</th>
<th>Australia</th>
<th>UK</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about how final assessment is reached</td>
<td>GN 15:60</td>
<td>GN 4.3.1</td>
<td></td>
</tr>
<tr>
<td>Qualify those figures obtained from expert report</td>
<td>GN 15:60</td>
<td>GN 4.3.1</td>
<td></td>
</tr>
<tr>
<td>Qualify valuation relied on veracity of expert report</td>
<td>GN 15:60</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Qualify non environmental expert</td>
<td>GN 15:30</td>
<td>GN 4.2.4</td>
<td></td>
</tr>
<tr>
<td>Reserve right for further comment on valuation report if further details of contamination is available</td>
<td>GN 15:60</td>
<td>GN 4.2.4</td>
<td></td>
</tr>
<tr>
<td>Advice on potential value impact &amp; further liabilities</td>
<td>GN 15:60</td>
<td>GN 4.2.2</td>
<td></td>
</tr>
<tr>
<td>Qualify if signs of contamination are not detected during inspection</td>
<td>GN 15:30</td>
<td>GN 4.2.2</td>
<td></td>
</tr>
<tr>
<td>Advice on highest and best use</td>
<td></td>
<td></td>
<td>In the UK highest and best use not specifically included but alternative use can be reflected in the valuation</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Advise vendor client on liability under “polluter pays” principle even if the contaminated property is sold</td>
<td>GN 15:50</td>
<td>GN 2.3.13</td>
<td></td>
</tr>
<tr>
<td>Inform client of signs of contamination found</td>
<td>GN 15:30</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Warn client of suspicious contamination and recommend further investigation by expert</td>
<td>GN 15:30</td>
<td>GN 4.2.4</td>
<td></td>
</tr>
<tr>
<td>Use recommended valuation approaches</td>
<td>GN 15:60</td>
<td>GN 4.3.7, 4.3.10</td>
<td>API recommends using unaffected valuation basis, affected valuation approach, environmental balance sheet approach, and comparative approach</td>
</tr>
<tr>
<td>Explain to client value discount for environmental factors</td>
<td>GN 15:60</td>
<td>GN 4.3.2</td>
<td></td>
</tr>
<tr>
<td>Give a non-zero valuation when remediation cost is higher than land value and advise client the value should be negative</td>
<td>GN 15:60</td>
<td>GN 4.3.2</td>
<td>A non-zero valuation not specifically included in RICS GN</td>
</tr>
<tr>
<td>Attach a copy of expert environmental report and remediation cost estimate in valuation report</td>
<td>GN 15:60</td>
<td>GN 4.3.2</td>
<td>Cost of remediation to be estimated by experts</td>
</tr>
<tr>
<td>Advice on possible GST/VAT impact</td>
<td>GN 15:10.0</td>
<td>GN 4.3.2</td>
<td>In the UK valuer is to be aware of wider tax environment</td>
</tr>
</tbody>
</table>

**Conclusion**

Both Australia and the UK have developed significant and detailed guidance notes on contamination and environmental matters reflecting the great concerns among the public, landowners, occupiers, investors and financial institutions. The reuse of brownfield sites is now a major policy initiative within the UK where targets have been set directing 60% of all new house construction to such locations. In addition the UK government is increasingly looking to the private sector to fund brownfield development consequently the alleviation of risk and the enhancement of investment return are major policy considerations. In contrast, redevelopment of brownfield sites in Australia is mainly initiated by private developers on piecemeal basis. The government has little input in this regard.

The respective guidance notes reflect the varying socio-economic backgrounds of the two countries in particular the differing industrial legacies which have bequeathed in
large part the contamination and environmental problems. However the guidance notes also represent differing evolutionary trajectories in terms of the professional body response to the problems encountered, legal circumstances and client pressures and requirements of professional services. The following paragraphs address the similarities and differences in approaches across the two countries making particular reference to Tables 1 and 2.

While there is a slightly different evolutionary path in Australia where the contamination advice has been downgraded from a practice standard to a guidance note, comparable to that in the UK, there is nonetheless a high degree of similarity in the areas of practice detailed in Tables 1 and 2. Both countries adopt a broadly similar approach to the identification, assessment, impacts and reporting of contamination and environmental matters. In this respect there is increasing recognition that the valuer is not an expert in contamination and environmental matters. Consequently, current standards, particularly in the UK, focus on the quality of the advice offered to the client reflecting the initial instructions, limitations of the inspection and basis of valuation. This situation is largely the product of a common driver namely the recognition of the complexity of contamination and environmental matters affecting land, property and construction. The approach taken in Australian GN 15 suggests that appropriate procedures will vary according to the circumstances of each property being valued, therefore there is no single solution which the valuer may apply. RICS GN on contamination and environmental matters (paragraph 4.2.4) emphasises that contamination can be caused by a wide variety of activities which are beyond the knowledge or expertise of most valuers nevertheless valuers must be aware of the common causes and symptoms of contamination.

Despite the high degree of similarity in the approaches noted above there are nonetheless significant differences across the two guidance notes. The most striking difference is the size of the UK version comprising 116 pages in contrast to the Australian guidance note of 19 pages which is comparable to the 1997 edition of the RICS. The extended guidance in the UK highlights the increasing knowledge on contamination and environmental matters as it affects all types of chartered surveyors rather than focussing solely on the valuation function. Consequently in the UK there is a greater emphasis on the limited contamination and environmental knowledge of most valuers, the resultant need for the valuer to obtain specialist advice, the reporting of the valuation in terms of the use of caveats and identifying the limitations of the inspection to the client.

In contrast the Australian guidance note appears to be more prescriptive concentrating on the details of the valuation function. While valuers should not give clients the impression that that they are experts in contamination and environmental matters, nonetheless it is not best practice for a valuer to disclaim liabilities by stating that the valuation report was prepared without regard to the question of the presence of contamination. In contrast to the UK, the Australian guidance note addresses in greater detail issues relating to understanding the potential problems of lenders, the quantification of contamination, remediation practices and techniques and GST caution.

Specific differences in Tables 1 and 2 relate to the inspection of the contamination land register which does not exist at a national level in the UK, advice on highest and
best use, an American valuation concept which does not have common usage in the UK and the requirement to report a non-zero valuation. RICS Guidance Note Contamination and Environmental Matters paragraph 4.3.2 may encompass the last two aspects in terms of the advice offered, however the level of detail is not specified.

In conclusion it appears that while a broadly similar approach is adopted across the two countries, there are nonetheless significant differences in the details contained in the respective guidance notes. In valuation terms the UK, as the oldest industrialised society in the world, appears to be adopting a more generalist approach to appraisal advice on contamination and environmental matters whereas Australia prefers more specific and detailed valuation guidance.
Reference


RICS (RICS, 2003b) Appraisal and Valuation Standards (the Red Book), Royal Institution of Chartered Surveyors, London