

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
BOARD OF REGISTRATION OF
HAZARDOUS WASTE SITE CLEANUP PROFESSIONALS

In the Matter of:

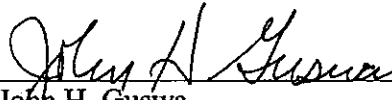
Richard J. Cushing,
Respondent

Docket No.: LSP-12-AP-01

AFFIDAVIT OF JOHN H. GUSWA

I, John H. Guswa, under the pains and penalties of perjury, state that I am the John H. Guswa whose prepared direct testimony is attached to this affidavit. I further state that, if asked the questions contained in the text of such testimony, I would give the answers that are set forth in the text of such testimony. I adopt the aforesaid answers as my direct testimony in this proceeding.

Signed under the pains and penalties of perjury this 24th day of August, 2012.



John H. Guswa

Exhibit B-11

**COMMONWEALTH OF MASSACHUSETTS
BOARD OF REGISTRATION OF HAZARDOUS WASTE SITE
CLEANUP PROFESSIONALS**

**before the
OFFICE OF APPEALS and DISPUTE RESOLUTION**

In the Matter of Richard J. Cushing

Docket No. LSP 12 AP 01

Prepared Direct Testimony of

John H. Guswa, LSP

**Witness in support of the Initial Determination of the
Board of Registration of Hazardous Waste Site Cleanup Professionals**

1 **Q. Please state your name and business address.**

2 A. My name is John H. Guswa, and my business address is JG
3 Environmental, Inc., 1740 Massachusetts Avenue, Boxborough, MA 01719.

4
5 **Q. What connection, if any, do you have with the Board of Registration**
6 **of Hazardous Waste Site Cleanup Professionals ("Board")?**

7 A. I have been licensed as a Licensed Site Professional ("LSP") in
8 Massachusetts since December 1993. Between November 2005 and November 2007, I
9 worked with the LSP Board and its consultant to develop questions for the licensing
10 examination given to prospective LSPs. In 2002, I testified as an expert witness in an
11 LSP Board disciplinary hearing. I have served as a member of the LSP Board from
12 August 15, 2008 to the present. One of my duties as a Board member is to serve on the
13 Complaint Review Teams that investigate complaints against LSPs. In particular, I
14 served as a member of the Complaint Review Team that investigated the complaint
15 against Richard J. Cushing that is the subject of these proceedings. As a member of the

1 CRT, I reviewed documents and data related to Mr. Cushing's work on the site,
2 interviewed Mr. Cushing, considered other information gathered by the staff investigator
3 and staff attorney, and submitted a report to the full Board for its consideration as to
4 whether sufficient evidence existed to warrant discipline.

5
6 **Q. What position do you occupy on the LSP Board?**

7 A. I occupy one of the five slots on the Board reserved for LSPs pursuant to
8 M.G.L. c. 21A, §19A.

9
10 **Q. Are you sponsoring any exhibits in addition to your direct testimony?**

11 A. I am sponsoring Exhibit B-12, my resume.
12
13

14 **Q. Please describe your educational and professional background.**

15 A. I have an undergraduate degree from Franklin and Marshall College in
16 Geology, and I have a M.S. and a Ph.D. from Pennsylvania State University in Geology.
17 After completing my Ph.D., I spent seven years as a hydrogeologist and Project Director
18 for the U.S. Geological Survey. From 1981 to 1984, I worked as a groundwater
19 consultant at Arthur D. Little, Inc., and I was a groundwater consultant at Roy F. Weston
20 from 1984 to 1985. From 1985 to 2006, I worked for GeoTrans, Inc., in Harvard,
21 Massachusetts, as a Principal Hydrogeologist. In 2004, I established my own consulting
22 firm, JG Environmental, Inc., where I am currently employed. From 2004 to 2006 I was
23 employed by both JG Environmental, Inc. and GeoTrans, Inc.

24 During my professional career I have served as Project Scientist, Project
25 Manager, Project Director, Principal Investigator, and LSP of Record on properties

1 contaminated by oil or hazardous materials that were required by the federal Superfund
2 law or state law such as G.L. c. 21E to be assessed and remedied. Many of these
3 properties were manufacturing or industrial sites contaminated with chlorinated solvents
4 similar to the contaminants in this case. I have designed and supervised site
5 investigations to determine the location of contamination; analyzed groundwater flow and
6 contaminant transport; evaluated the need for remedial actions, prepared conceptual
7 remedial designs, and oversaw the implementation of remedial actions. I have negotiated
8 with government regulators on behalf of clients, and served as a consultant or expert
9 witness on many additional hazardous waste disposal sites governed by the federal
10 Superfund law or G.L. c. 21E.

11 In addition to being a Licensed Site Professional, I am a licensed Professional
12 Geologist in the Commonwealth of Pennsylvania, I am certified by the American
13 Institute of Hydrology as a Professional Hydrogeologist, and I have been an Associate
14 Editor of the professional journal *Ground Water* for the past several years. For
15 approximately 15 years I have been a member of the Licensed Site Professional
16 Association ("LSPA") Loss Prevention Committee. One of the objectives of the Loss
17 Prevention Committee is to collect and present information about technical and business
18 practice issues and recurring LSP issues violations identified by the Massachusetts
19 Department of Environmental Protection ("MassDEP") in audits of LSP submittals. The
20 committee also provides peer reviewers for LSP opinions. All these activities are to help
21 LSPA members improve their LSP practices. I have also served for approximately two
22 years on the LSPA Technical Practices Committee, which presents information about

1 technical issues and interpretation of the cleanup regulations known as the Massachusetts
2 Contingency Plan or "MCP."

3 Additional details regarding my educational and professional background are
4 provided in my resume, Exhibit B-12.

5
6 **Q. What documents, if any, have you reviewed in developing your**
7 **testimony?**

8 A. I have reviewed the Complaint filed with the Board by the Massachusetts
9 Department of Environmental Protection (MassDEP), Mr. Cushing's response dated
10 October 2, 2008, the Board's Order to Show Cause and Proposed Order, the
11 Respondent's Answer to Proposed Order, and the documents from MassDEP's files for
12 the site that are the Exhibits in this adjudicatory hearing and related documentation.

13
14 **Q. What experience have you had working with chlorinated solvent**
15 **contamination and potential impact to indoor air?**

16 A. My first experiences with sites contaminated with chlorinated solvents were in
17 1981 when I worked on several Hooker Chemical (now known as Occidental Chemical)
18 landfill sites in the Niagara Falls, NY area. Since 1981, I have provided technical
19 consulting services at more than 70 sites contaminated with chlorinated solvents. Several
20 of those sites required consideration of potential impacts to indoor air. At many of these
21 sites I oversaw the design and implementation of remedial actions for groundwater and
22 soil contamination, some of which required engineered ventilation systems and sealing of
23 floors over potential source areas, to protect site workers or employees from vapors and
24 prepare sites for future use. Chlorinated solvents in their liquid (non-dissolved) form are

1 heavier than water and are often referred to as “dense non-aqueous phase liquids” or
2 “DNAPL.” I have published and presented many papers on the movement of DNAPL,
3 and the investigation and remediation of DNAPL sites. These papers are listed in my
4 resume, Exhibit B-12.

5
6 **Q. What experience have you had working with risk assessors on**
7 **hazardous waste sites, including sites subject to G.L. c. 21E?**

8 A. I have worked with risk assessors in various capacities on hazardous waste
9 sites. In some instances I was the LSP for a site and hired risk assessment specialists to
10 do the risk assessments. In other instances where I was not serving as an LSP, I have
11 coordinated my work with the risk assessors to advise clients and other interested parties
12 regarding risks posed by contamination at the site. At some federal Superfund sites I
13 have worked with government risk assessors to develop consensus regarding potential
14 exposure pathways and provided them with site-specific data necessary for the risk
15 assessment.

16
17 **Q. On sites where you have used a professional risk assessor, what was**
18 **your role as the LSP of record in relation to the risk assessor?**

19 A. As the LSP for the site, I was ultimately responsible for all aspects of the
20 site investigation and evaluation. With respect to risk assessment, a trained risk assessor
21 would be brought onto a hazardous waste site cleanup project team if the site conditions
22 required a Method 3 site-specific risk characterization, or otherwise called for a risk
23 assessor’s specialized training and knowledge. It was my responsibility to tell the risk

1 assessor what kind of evaluation I thought needed to be done, explain the site conditions,
2 and give the risk assessor the laboratory analytical data from the site. I would give the
3 risk assessor as much information as possible about the exposures as I knew them. I
4 would make sure that the risk assessor was aware of the exposure scenarios relevant to
5 the site, e.g., whether site buildings are residential or commercial, and how often, how
6 long and what age people were present in the buildings. I would solicit the risk
7 assessor's input and guidance on the exposure scenarios to be evaluated. Because I had
8 more knowledge than the risk assessor about site history and current usage, I had the
9 responsibility to determine which exposure assumptions were the most conservative and
10 should be used to comply with the MCP. The process was not for the risk assessor to
11 calculate the risk using several exposure scenarios without guidance from me, and then
12 select one scenario from the results, as occurred in this case. The risk assessor needed to
13 perform the risk characterization using the site data and potential exposure assumptions
14 provided by me.

15 The LSP has the responsibility to review the risk assessor's results and
16 conclusions, and determine their significance. The LSP should discuss the report with
17 the risk assessor, and it is the LSP's responsibility independently to compare the risk
18 assessor's results to the MCP standards to determine what additional assessment or
19 remediation might be required by the MCP.

20
21 **Q. Have you reviewed the 2003 test results for soil, groundwater, and soil**
22 **gas samples from 211 West Main Street in Ayer, Massachusetts (the "site")?**

23 **A. Yes, I reviewed the laboratory reports of test results for soil, groundwater,**
24 **soil-gas and indoor air samples collected at this site, and the tables summarizing that data**

1 in the Phase I Initial Site Investigation Report and Tier Classification that was signed by
2 Mr. Cushing in November 2003 and submitted to MassDEP in January 2004 (Exhibit 6).

3
4 **Q. Is it your opinion that Mr. Cushing's response in 2003 to the site data**
5 **failed to comply with the standard of care required for LSPs at that time?**

6 A. Yes. The soil gas PCE concentration of 2.4 million parts per billion
7 ("ppb") was extraordinarily high immediately outside the building foundation, indicating
8 that PCE vapor could potentially infiltrate through cracks in the foundation and expose
9 workers in the building to concentrations that could harm their health in the short term,
10 which would be an Imminent Hazard under the MCP. Therefore, it was urgent to
11 evaluate whether an Imminent Hazard existed. Mr. Cushing had the soil gas data faxed
12 to a risk assessor, Debra Listernick of the firm O'Reilly, Talbot & Okun ("OTO") on
13 September 30, 2003, see Exhibit 5, but that fax did not include a request for an Imminent
14 Hazard evaluation. Mr. Cushing acknowledges that Ms. Listernick (the "risk assessor")
15 told him verbally that the soil gas evaluation identified a risk that was higher than the
16 MCP standard for No Significant Risk. Respondent's Answer to Proposed Order ¶27.
17 However, Mr. Cushing did not ask for any detail about that risk. Therefore, he did not
18 have the information necessary to determine whether an Imminent Hazard could or did
19 exist. He took no direct action in response to her verbal information that the risk was
20 greater than No Significant Risk.

1 **Q. How did Mr. Cushing breach the standard of care by not asking for**
2 **more detail about the level of risk indicated by the soil gas evaluation in October**
3 **2003?**

4 A. Mr. Cushing breached the standard of care because he needed more
5 information to determine whether the risk value calculated by OTO could be an Imminent
6 Hazard to human health, but he sought no further information about the risk in 2003.
7 Under the MCP, a release that could pose significant risk to human health within a short
8 time is deemed an Imminent Hazard, and a cancer risk that is more than ten times the
9 limit for No Significant Risk could be an Imminent Hazard. 310 CMR 40.0321(1)(d) &
10 (2)(c). Without obtaining the Excess Lifetime Cancer Risk (ELCR) calculated by the risk
11 assessor, Mr. Cushing could not know whether it exceeded the “ten times” standard.

12 During our investigation, the Board’s Complaint Review Team issued a document
13 request to OTO, and obtained a copy of the risk assessor’s worksheet for the soil gas
14 evaluation, dated 10/2/2004, Exhibit 24. The worksheet shows an ELCR of 3.6E-04.
15 This number, also expressed as 3.6-in-10,000 was 36 times the MCP standard of one-in-
16 100,000 for No Significant Risk, 310 CMR 40.0993(6), thus an Imminent Hazard could
17 exist.

18 Mr. Cushing acknowledges that he did not ask OTO for the ELCR in October
19 2003. Respondent’s Answer to Proposed Order ¶28. His failure to ask the risk assessor
20 for more detail about the risk calculation violated the standard of care and indicated he
21 was not aware of MCP standards for evaluating whether an Imminent Hazard could exist.

22 All of my citations to the MCP in my testimony refer to the version in effect in
23 2003-2004, when Mr. Cushing’s work on this site was performed.

1 **Q. Mr. Cushing stated that in 2003 he had no reason to believe that the**
2 **risk assessor was unfamiliar with the MCP standards for Imminent Hazard, and the**
3 **risk assessor never revealed the Excess Lifetime Cancer Risk (ELCR). Does this**
4 **statement alter your opinion in any way?**

5 **A. No. Mr. Cushing's expectation that the risk assessor would tell him if an**
6 **Imminent Hazard existed does not meet the standard of care for an LSP. It is the central**
7 **function of an LSP to give a certified professional opinion that the site assessment and**
8 **remediation comply with the applicable provisions of G.L. c. 21E and the MCP. G.L. c.**
9 **21A, §19, c. 21E, §3(e); 310 CMR 40.0015(4). Thus it is the LSP's responsibility to**
10 **apply the MCP standards. 309 CMR 4.03(3)(B). Imminent Hazard standards have**
11 **special significance because of the potential risk to site occupants, which is why the**
12 **Board requires an LSP to notify MassDEP of an Imminent Hazard within 24 hours if the**
13 **client does not do so. Id. at 4.03(4). Mr. Cushing cannot escape his responsibility to**
14 **understand and apply the MCP standards for Imminent Hazard by relying entirely on the**
15 **risk assessor. If the risk assessor did not inform him of the cancer risk level calculated**
16 **from the soil gas data, then as the LSP, Mr. Cushing should have requested it. He should**
17 **have understood that as LSP he needed to know the calculated ELCR to determine**
18 **whether an Imminent Hazard existed or could have existed.**

19
20 **Q. Mr. Cushing claims that in October 2003, the risk assessor gave him**
21 **verbal information that indoor air testing could be conducted in Phase II, and,**
22 **therefore, his decision to test indoor air in Phase II, rather than earlier, complied**

1 **with the standard of care. Respondent's Answer to Proposed Order ¶31. Do you**
2 **agree?**

3 A. No. Mr. Cushing should not have relied on the risk assessor for the
4 decision about when to do indoor air testing. It is the LSP's responsibility to decide how
5 and when to conduct site assessment, including indoor air testing. As soon as MassDEP
6 received the report of 2.4 million ppb of PCE in the soil gas in the Phase I report, it
7 ordered indoor air testing to be done immediately, as described in the Notices of
8 Noncompliance ("NON") to Mr. Cushing's client (Exhibit 18), as well as to Mr. Cushing
9 directly, Exhibit 19. Similarly to MassDEP, I conclude that the high concentrations of
10 PCE in soil gas should have alerted Mr. Cushing to do indoor air testing, and because he
11 did not, his response to the soil gas data did not meet the standard of care for an LSP in
12 2003.

13
14 **Q. In responding to the soil gas data in 2003, did Mr. Cushing reasonably**
15 **rely on the risk assessor in accordance with the Board's regulations?**

16 A. No. Mr. Cushing's reliance on the risk assessor to determine whether an
17 Imminent Hazard existed and whether and when to perform indoor air testing was not
18 reasonable and did not comply with the standard of care or the Board's requirement that
19 an LSP shall exercise independent professional judgment. 309 CMR 4.03(3)(a). The risk
20 assessor here was not an LSP. As I stated above, it is the LSP's responsibility to plan,
21 supervise, and review the site assessment, including the results of any risk
22 characterization. Once the risk assessor identified a potential long-term risk at the site,
23 Mr. Cushing as LSP should have been more involved in the evaluation, and should have

1 taken responsibility for determining whether an Imminent Hazard existed and when to
2 test indoor air.

3
4 **Q. Do you believe that the Phase I Report and Tier Classification**
5 **submittal (Exhibit 6) met the standard of care in the LSP profession at the time it**
6 **was filed in January 2004?**

7 A. No. The Phase I report and Tier Classification submitted by Mr. Cushing
8 (Exhibit 6) did not meet the Board's standard of reasonable care and diligence and
9 knowledge ordinarily exercised by LSPs at that time, because it downplayed the potential
10 for indoor air exposure to PCE that he already knew was a significant risk to workers in
11 the building. Nothing in the Phase I report indicated the seriousness of the high
12 concentrations of PCE in soil gas immediately outside the building foundation. The
13 Phase I report did not mention the potential for an Imminent Hazard. In the Conceptual
14 Phase II Scope of Work, it stated that indoor air would be tested "as appropriate." The
15 Phase II Scope of Work should have made a firm commitment to test indoor air
16 immediately. In addition, the Tier Classification was done improperly, because it scored
17 indoor air as a "potential" exposure pathway, rather than a "likely" pathway.

18
19 **Q. Why do you believe that the statement in the Phase I submittal that**
20 **indoor air would be tested "as appropriate" breached the LSP standard of care?**

21 A. The statement that indoor air would be tested "as appropriate" does not
22 make a definite commitment to test indoor air, and immediate testing was needed due to
23 the serious potential risk of high concentrations of PCE in indoor air. PCE is a human
24 carcinogen. The risk assessor had already informed Mr. Cushing that there was

1 significant risk at the site from PCE vapor intrusion into indoor air. Therefore, the scope
2 of work for Phase II should have included a commitment to test indoor air immediately.
3 The statement that indoor air would be tested “as appropriate” was not sufficient and did
4 not reflect reasonable care and diligence or ordinary knowledge and skill by Mr. Cushing
5 as the LSP.

6 Mr. Cushing has offered Exhibit 7, a letter proposal to the property owner that
7 included a recommendation for 14 hours of indoor air testing. See also, Respondent’s
8 Answer to Proposed Order ¶40. However, he has also indicated that the site owner did
9 not approve the proposal because the plans were too costly. Exhibit 23, Mr. Cushing’s
10 Answer to the Complaint to the LSP Board, pp. 2-3. The Board’s Rules of Professional
11 Conduct require the LSP to follow applicable MCP requirements and procedures. 309
12 CMR 4.03(3)(b). The Board understands that clients may face hardship, but this does not
13 excuse the obligation of an LSP to comply with the MCP.

14
15 **Q. Why do you believe that scoring indoor air 100 points as a “potential**
16 **exposure pathway” on the Numerical Ranking System (“NRS”) score sheet, rather**
17 **than 200 points as a likely pathway, breached the standard of care for LSPs?**

18 A. The risk assessor’s verbal information in October 2003 that there was a
19 significant risk from PCE vapor intrusion meant that indoor air must be scored 200 points
20 as a “Likely” exposure pathway. The only alternative was to test indoor air directly and
21 score the indoor air exposure pathway based on the air concentration data before
22 submitting the Tier Classification. Lacking indoor air tests, all the information available
23 to Mr. Cushing demonstrated that a significant risk already existed from migration into
24 indoor air. Therefore, he was obligated to score indoor air as a “Likely” exposure

1 pathway, and his failure to do so violated the MCP and the Board's standard of
2 reasonable care and diligence, 309 CMR 4.02(1). A revised NRS scoresheet and Tier
3 Classification were necessary, see Exhibit 15, because MassDEP had issued Notices of
4 Noncompliance ("NON") to Mr. Cushing's client (Exhibit 18), as well as to Mr. Cushing
5 directly, Exhibit 19. MassDEP faulted Mr. Cushing for not scoring indoor air 200 points,
6 not considering known data obtained during Phase I, not collecting indoor air data during
7 Phase I, and other violations.

8
9 **Q. Mr. Cushing submitted a letter to MassDEP dated February 24, 2004,**
10 **with OTO's February 23, 2004 Indoor Air Evaluation report, as evidence that no**
11 **Imminent Hazard existed at the site, see Exhibits 9 and 10. In your view, did Mr.**
12 **Cushing's submittal meet the standard of reasonable care in the LSP profession?**

13 **A.** No. Mr. Cushing's submittal did not meet the standard of care for several
14 reasons. First, an LSP exercising reasonable care would not have agreed with the
15 statement in OTO's Indoor Air Evaluation report that a part-time employee was the more
16 likely scenario, because there were full-time employees working in the video store on
17 site, as reported in the Phase I. Mr. Cushing was aware that there were full-time workers
18 at the site. The MCP requires the evaluation to be conducted in a manner that results in
19 conservative estimates of potential exposures. 310 CMR 40.0953(7). Thus even if a
20 majority of the on-site employees worked part-time, Mr. Cushing should have identified
21 the full-time worker as the more conservative exposure scenario before the Imminent
22 Hazard Evaluation of the indoor air data was performed.

1 Also, Mr. Cushing's submittal said that OTO concluded there was no Imminent
2 Hazard for a full-time worker. However, if Mr. Cushing had read OTO's report carefully
3 and understood it or discussed it with the risk assessor, he would have seen that the report
4 indicated that there was an Imminent Hazard for the full-time worker, because the report
5 states that "there is a potential for significant carcinogenic risks to the full time worker
6 under the assumptions of this evaluation and assuming that no remedial action is
7 completed."

8 Also, the ELCR of $6E-05$ (also expressed as six-in-100,000) for the full-time
9 worker, which was reported in both Table 3A and page 2 of the report, was six times the
10 MCP Imminent Hazard standard of $1E-05$ (one-in-100,000). 310 CMR 40.0955(2)(b).
11 Mr. Cushing did not recognize that the report erroneously referred to an Imminent Hazard
12 standard of $1E-04$ (one-in-10,000) when the correct MCP standard was $1E-05$. However
13 there is only one Method 3 Imminent Hazard cancer risk standard, and that is the ELCR
14 of one in one hundred thousand or $1E-05$, 310 CMR 40.0955(2)(b). I believe that a
15 reasonably careful LSP applying ordinary knowledge and skill in 2003-2004 would have
16 focused on the numerical end result of the risk assessor's work, i.e. the ELCR of $6E-05$,
17 and either would have known that the Method 3 cancer risk standard was $1E-05$, or would
18 have consulted the MCP and identified the correct standard of $1E-05$. Therefore, Mr.
19 Cushing should have seen that the calculated ELCR of $6E-05$ exceeded the MCP
20 Imminent Hazard standard.

21 These were careless errors. Selecting the conservative exposure scenario,
22 recognizing that short-term "significant carcinogenic risks" means that an Imminent

1 Hazard exists, and checking the ELCR against the Imminent Hazard standard are basic
2 tasks that fall squarely within an LSP's responsibilities.

3
4 **Q. In responding to the indoor air test results and the risk assessor's**
5 **Indoor Air Evaluation report in February 2004, did Mr. Cushing reasonably rely on**
6 **the risk assessor in accordance with the Board's regulations?**

7 A. No. Mr. Cushing relied entirely on the risk assessor to determine whether
8 an Imminent Hazard existed under the MCP standards. This is not the reasonable
9 reliance permitted by the Board's rules. The Board's rules permit LSPs to rely only in
10 part on other professionals such as risk assessors, 309 CMR 4.02(3), and they require
11 LSPs to exercise independent professional judgment, 309 CMR 4.03(3)(a). This means
12 the LSP must know what the risk assessor is doing and why they are doing it. The LSP
13 must evaluate both the assumptions and the results in the report, in light of what the MCP
14 requires. If the risk assessor offers an opinion about what the MCP requires, the LSP
15 must confirm it. In this case, the risk assessor erroneously referred to a standard of 1E-04
16 for an Imminent Hazard, but the correct standard was 1E-05. The risk assessor was not
17 an LSP, and it is the responsibility of the LSP, not the risk assessor, to supervise the site
18 assessment, including the risk characterization, and ensure it complies with the MCP.
19 Mr. Cushing violated the standard of care by not recognizing that the Excess Lifetime
20 Cancer Risk of 6E-05 was an Imminent Hazard for a full-time worker.

21
22 **Q. In your opinion, did Mr. Cushing's work in this case violate the**
23 **standard of care set forth in 309 CMR 4.02(1)?**

1 A. Yes. 309 CMR 4.02(1) states:

2 In providing Professional Services, a licensed site professional shall act
3 with reasonable care and diligence, and apply the knowledge and skill
4 ordinarily exercised by licensed site professionals in good standing
5 practicing in the Commonwealth at the time services are performed.
6

7 Mr. Cushing did not act with reasonable care and diligence by, among other
8 things:

9 • Not asking the risk assessor for the Excess Lifetime Cancer Risk (ELCR) or any
10 detail after the risk assessor informed him in October 2003 that the calculated risks
11 exceeded MassDEP risk limits for No Significant Risk;

12 • Not conducting indoor air testing or an Imminent Hazard Evaluation after the
13 risk assessor informed him in October 2003 that the calculated risks exceeded MassDEP
14 risk limits for No Significant Risk;

15 • Submitting a Phase I Initial Site Investigation Report and Tier Classification
16 Submittal that did not mention the possibility that an Imminent Hazard existed, that stated
17 indoor air would be tested "as appropriate," and that assigned a score of 100 to indoor air
18 as a "Potential" exposure pathway rather than 200 points as a "Likely" exposure
19 pathway;

20 • Not adequately reviewing the February 23, 2004 Indoor Air Evaluation report
21 or questioning its stated assumption that part-time workers were the more appropriate
22 risk scenario to consider rather than full time workers; and

23 • Not reviewing the ELCR of 6E-05 for full-time workers in the February 2004
24 Indoor Air Evaluation report, and not reporting to MassDEP that an Imminent Hazard
25 existed at the site.
26

1 **Q. In your opinion, did Mr. Cushing's work in this case violate the**
2 **Board's Rule of Professional Conduct 309 CMR 4.02(3), which authorizes LSPs to**
3 **rely in part upon advice of qualified professionals?**

4 A. Yes. 309 CMR 4.02(3) states:

5 In providing Professional Services, an LSP may rely in part
6 upon the advice of one or more professionals whom the LSP reasonably
7 determines are qualified by education, training and experience.

8
9 Mr. Cushing violated this Rule by, among other things:

10 • Not asking the risk assessor for the ELCR after he was informed in October

11 2003 that the risks exceeded MassDEP risk limits for No Significant Risk;

12 • Not adequately reviewing the February 2004 Indoor Air Evaluation report or

13 questioning its stated assumption that part-time workers were the more appropriate risk

14 scenario to consider rather than full time workers; and

15 • Not reviewing the ELCR for full-time workers in the February 2004 Indoor Air

16 Evaluation report and not recognizing that it represented an Imminent Hazard.

17
18 **Q. In your opinion, did Mr. Cushing's work in this case violate the Board's**
19 **Rule of Professional Conduct 309 CMR 4.03(3)(a), which requires that an LSP**
20 **exercise independent professional judgment?**

21 A. Yes. 309 CMR 4.02(3)(a) states:

22 In providing Professional Services, a licensed site professional shall
23 exercise independent professional judgment.

24
25 Mr. Cushing failed to exercise independent professional judgment by, among

26 other things:

1 • Not asking the risk assessor for the ELCR after he was informed in October
2 2003 that the calculated risks exceeded MassDEP risk limits for No Significant Risk;
3 • Not determining that indoor air should be tested immediately;
4 • Not adequately reviewing or questioning the risk assessor's assumption in the
5 February 2004 Indoor Air Evaluation Report that part-time workers were the more
6 appropriate risk scenario to consider rather than full-time workers; and
7 • Not recognizing that the February 2004 Indoor Air Evaluation Report reported
8 an Imminent Hazard for full-time workers.
9

10 **Q. In your opinion, did Mr. Cushing's work in this case violate the**
11 **Board's Rule of Professional Conduct 309 CMR 4.03(3)(b), which requires LSPs to**
12 **comply with the MCP?**

13 A. Yes. 309 CMR 4.03(3)(b) reads as follows:

14 In providing professional services, a licensed site professional shall follow the
15 requirements and procedures set forth in applicable provisions of M.G.L. c. 21E
16 and 310 CMR 40.0000.
17

18 As discussed above, Mr. Cushing violated several MCP provisions, including
19 standards for Imminent Hazards and conditions that could pose an Imminent Hazard;
20 requirements to notify MassDEP of conditions that could pose an Imminent Hazard and
21 begin an Imminent Hazard Evaluation within 14 days; requirements to conduct risk
22 characterization in a conservative manner; and requirements for Phase I reports and Phase
23 II Scopes of Work, 310 CMR 40.0311, 40.0321, 40.0426, 40.0953(7), 40.0955(2)(b),
24 40.0993(6)-(7), and 40.0834, and in doing so, Mr. Cushing violated the Board's rule of
25 professional responsibility 309 CMR 4.03(3)(b).

1 **Q. Does this conclude your testimony?**

2 **A. Yes.**