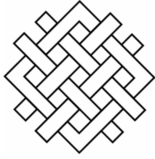

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MULTIPAINT, INC.
TEACHING NOTE

Background and Objectives of Case

This case requires integration of concepts from managerial and financial accounting and, to a lesser degree, tax, systems and auditing. In addition, it incorporates other legal, ethical and management issues.

Students are placed in the role of consultants to MPI, a Pacific Northwest manufacturer of "environmentally-friendly" paints and stains. News of contamination on the site of an abandoned Company manufacturing site has leaked to the press creating a series of tough issues for management. (See *Post* Article 5/6/94 and subsequent events.)[1]

1 Environmental issues of this type are now common. Some firms are cleaning up problems from 50-100 years ago. Government agencies may have hundreds of sites on their lists. For example, EPA has over 1200 sites on its National Priority List, with another 4000 potential additions. Over 30,000 sites have been catalogued for possible review. These sites include dry-cleaning establishments, paint outlets, gas stations, metal plating operations, public warehouses, and even farms.

This teaching note was prepared by Robert M. Bowen, Stephan E. Sefcik, and Naomi S. Soderstrom, University of Washington, Seattle, Washington, U.S.A., as the basis for class discussion rather than to illustrate either effective or ineffective handling of a managerial situation. ***All rights reserved to the authors and to the Accounting Education Resource Centre.*** ***Reprinted from The Journal of Accounting Case Research with the permission of Captus Press Inc., North York, Ontario, Canada and the Accounting Education Resource Centre of the University of Lethbridge, Lethbridge, Alberta, Canada.*** **[Journal Subscription, Captus Press Inc., York University Campus, 4700 Keele Street, North York, Ontario, M3J 1P3, by calling (416) 736-5537, or by fax at (416) 736-5793, Email: info@captus.com, Internet: http//www.captus.com]**

The consultants' initial task (addressed in Part 1 below) is to determine which of several potential options for mitigating the contamination should be pursued. This part of the case can be framed as a capital budgeting decision with the usual (if somewhat complicated) set of issues, including identification of: relevant cash flows, tax implications, and uncertainties. Also intertwined among these options are a number of ethical, risk, and public relations issues that cannot be resolved quantitatively.

Depending on the option(s) recommended, a number of accounting and disclosure issues are addressed in Part 2 below.

Part 1: Alternatives for Property

A. Quantitative Analyses

The options mentioned in the case are intended to illustrate the complexity of real-world decision making, and thus no option is clearly superior after considering intangible factors. Spreadsheet analysis is a starting point to analyze the basic case facts.[2] However, it requires a number of heroic assumptions, including:

- All flows are assumed to be "real" (as opposed to "nominal") cash flows, i.e., they are assumed to be adjusted for a 2% rate of inflation that is common across all cash flows in all years. (More appropriate would be to estimate the inflation pattern for individual cash flows and discount these at the appropriate time period-specific nominal rate.)

- All projects are of identical risk and that risk is reflected in the Company cost of capital. (More appropriate would be to have each project reflect its individual risk-adjusted discount rate.)

- This teaching note treats tax issues at a relatively simplistic level. Issues not considered can affect the ranking of the mentioned alternatives and may even generate additional options, e.g., allocation of tax benefits are important in structuring the sales transaction.

In general, current tax rules do not allow deduction of environmental clean-up expenditures.[3] Therefore the suggested solution capitalizes these expenditures into the basis of the land. This, of course, reduces the gain at disposition.

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[2] The authors' spreadsheet analysis is available on request.

[3] However, there is considerable pressure on Congress and the IRS to allow remediation costs as deductions. This would tend to make the continue-to-operate option relatively more valuable. Further note that the tax treatment of the barrier in alternative 5 is ambiguous. We have taken the conservative position that the IRS would disallow this as a current period deduction and have added the cost of the barrier to the basis of the land.

B. Qualitative Factors

A student who "correctly" solves the quantitative analysis but ignores the numerous subjective factors will have done a poor job analyzing the case. Qualitative factors associated with each alternative are discussed in turn.

Alternative 1: Clean up the property themselves prior to sale

Although this alternative ranks high in NPV,[4] it contains substantial risks not explicitly incorporated into the spreadsheet "solution." For example, it is likely there will be delays and cost overruns in the cleanup process.[5] A large unaccounted-for risk related to this alternative is that MPI would retain all liability for future problems.[6] More specifically, this option requires evaluation of:

- Uncertainty about magnitude of cash flows including salvage value of equipment, operating cash flows to clean up the site, future tax cash flows, and especially the future sales price of the land. It is possible that environmental regulations will change, potentially increasing the liability.

- Uncertainty about the timing of the cash flows including: Can we finish the cleanup project in three years? How long will it take to sell the land?

One might address these issues by performing sensitivity analyses and/or using a higher risk-adjusted discount rate.

Some will see this alternative as having a significant public relations advantage. In the extreme, some may claim this is the only socially responsible option. "MPI has done the damage; they should step up, take responsibility and fix the problem (themselves). After all, actions speak louder than words."

Alternative 2: Contract with outside party for cleanup

Although this alternative ranks last in NPV (even with the lowest-cost "bid"), it has perhaps the lowest risk of any of the alternatives. If a fixed price bid can be obtained, this option has less risk of cost overruns and legal considerations than the first option. While indemnification would only be up

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[4] Obvious difficulties arise in the comparison of multiple projects that have different investment horizons. Assumptions need to be made to compare and rank the NPV outcomes.

[5] We assume that the quality of cleanup results are equivalent across alternatives.

[6] Historically, over 80% of total dollars spent in environmental (Superfund) remediation have been spent on legal costs.

to the amount of the individual bid, this still provides $19 million (or more) of protection. However, some will see hiring others to cleanup MPI's mess as avoiding responsibility.

Given that environmental contractors have been able to limit their liability (unlike public accounting firms), MPI may retain more risk than the guarantee would suggest. Further, it may be unlikely that a contractor would accept a fixed fee contract and indemnify MPI.

Alternative 3: Sell the land to the developer as is, at a discount

Although this alternative has a positive NPV, it arguably retains the greatest risk of any of the alternatives. Although sale of the land does not absolve MPI from future liability, the firm loses direct control over decisions that affect the cost of cleanup. Traditionally (at least for Superfund cases), courts have held that environmental liability is strict (negligence is not required), joint and several (a party's portion of the liability is not necessarily related to the party's participation in the damage), and retroactive (satisfying current legal requirements does not guarantee that future changes in the law will not result in liability).

Alternative 4: Donate the land

Although this alternative ranks next-to-last in NPV (at least if MPI sells "as is"), it could be a quick and "popular" solution to MPI's environmental problems.[7] True indemnification may be feasible under this option – a particularly valuable feature. A good public relations outcome could enhance the Company's new marketing strategy. Even if large cleanup costs are incurred by the City, it is unlikely the City would go after MPI. Some would argue that local governments have received better treatment by regulators than private firms. A deduction for a charitable donation can be taken at the fair market value of the land on the date of the donation. However, the deduction in any year is subject to a maximum of 10% of "business income." If the donation cannot be taken in its entirety, the residual can be carried forward up to 5 years.[8]

However, as the case suggests, there are substantial "political" risks to this strategy. Risks include an extended process, negative press, failure of the deal to be approved, etc. For example, a

[7] Gasworks Park in the City of Seattle is an example of successful donation of a polluted site.

[8] The book value of the land would be written off for financial reporting purposes.

perception may be created (in the media) that this is not a gift, but rather shifts the responsibility for cleanup to the taxpayers.

Altruistic students may even propose a combination of alternatives 1 and 4, i.e., MPI cleans the property and then donates it to the City.

Alternative 5: Re-open old site for manufacturing

This option is clearly a positive NPV project and one of the most desirable in a strictly monetary sense. This is especially true if the Company can continue to operate the plant profitably after the initial three year contract expires.[9] However, producing a product that is viewed as dangerous by consumers in the United States raises ethical and marketing issues. Second, there are undoubtedly new toxic disposal issues that will arise as a result of the production process (e.g., lead contamination of air and water). MPI may have trouble borrowing cash up front if they need to finance the project with debt.

Again, this alternative involves substantial uncertainties since MPI is still responsible for eventual remediation. Consider the cost of cleanup if they cannot renew at the end of the three-year contract. At one extreme, remediation technology may have advanced, greatly lowering the cost of cleanup. At the other, regulations may be substantially more severe, further increasing the cost of cleanup.

Part 2: Accounting and Disclosure Issues

Factors that would be relevant in a discussion of financial accounting and disclosure issues include:

- Under SFAS #5, once a liability is probable and reasonably estimable, the liability is transformed from a contingent liability (requiring only disclosure in the notes) to one that has to be booked (DR: Loss; CR: Liability). Note that FIN (Financial Interpretation) #14 (of SFAS 5) states that, if no amount within a range of estimates is a "better estimate" than any other amount, the firm can disclose the minimum from the range.[10] Also note that, should an estimate turn out to be insufficient to remediate the problem, the incremental liability can be treated as a change in accounting estimate, i.e.,

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9 Todd Shipyards (of Tacoma, Washington) is an example of a Company being allowed to operate on a Superfund site. Allegedly, Todd has chosen the "continue to operate" strategy because all other options involve current remediation at prohibitively high costs.

10 The range of potential remediation costs stated in the case is not unusual. There are many examples where the range is much greater (e.g., Adolph Coors disclosed potential environmental cleanup costs ranging between $151.3 million and $4.5 billion in its 1990 annual report). SFAS 5 requires the firm to disclose its best estimate of its environmental (contingent) liability, when probable and reasonably estimable. However, FIN 14 allows the firm to disclose the minimum of an estimated range when no amount in the range is a better estimate than any other. In reality, we observe firms disclosing minimums, maximums, most likely amounts, best estimates, or ranges.

prospectively and with no explicit disclosure (unless the change is material). "Slow" recognition of increases in the liability could avoid the materiality criterion.

- Alternatively, one could argue that SFAS #5 is not applicable in this situation. Since we have an asset (land) that has been impaired, we could write down the value of the land and recognize a loss (DR: Loss; CR: Land). As remediation proceeds, actual costs incurred in the remediation process could be capitalized (up to the market value of the land). Note that if the credit to the liability in SFAS #5 is interpreted as a contra-asset (land in this case), the two approaches can be viewed as conceptually similar. However, management is not likely to see them as equivalent given the existence of covenants, etc.

- However, under SFAS #5, after a liability has been recorded, if a firm proceeds to remediate the problem themselves, they face a dilemma – how should the actual costs of remediation be treated – capitalized or expensed? (After all, the market value of the property is enhanced by these expenditures.)

- EITF (Emerging Issue Task Force) 90-8 addresses capitalization or expensing of remediation costs and SFAS 5 addresses disclosure/recognition of a contingent liability. The relation between these two standards is unclear. For example, if a liability is accrued under SFAS 5, what are the implications of EITF 90-8 as the site is being remediated?

- The SEC has more stringent disclosure requirements. For example, publicly traded firms may be required to disclose a contingent liability in the MD&A before any disclosure appears in the balance sheet or footnotes to the financial statements.

Students are likely to vary widely in their interpretation of the above pronouncements in their application to the specific options in the case. A typical confusion is difference between the underlying environmental contamination (which gives rise to a liability) with the type of remediation process. For example, some students will think that if MPI does the cleanup themselves, they won't have to book a liability. Similarly, some will think sale of the property terminates SFAS #5 reporting requirements. However, with typical environmental liabilities (and "deep pockets"), this is not the case.

In our view, the liability exists under all five alternatives. The earliest the liability would be eliminated under alternatives 1, 2, 3 and 5 is when the land is "clean." Given a contract gifting the land to the City could be negotiated within a relatively short period of time, it is conceivable the liability could be eliminated earlier under alternative 4 after the land is donated to the City (and assuming a binding indemnification provision and "deep City pockets").

Relevant authoritative pronouncements include:

- SFAS #5 – contingent liabilities
- FIN (Financial Interpretation) #14 – interpretation of SFAS #5
- EITF (Emerging Issue Task Force) 89-13 – capitalizing asbestos removal costs
- EITF (Emerging Issue Task Force) 90-8 – capitalizing vs. expensing actual remediation costs
- EITF (Emerging Issue Task Force) 93-5 – discounting and offsetting
- SEC Regulation S-K, items 101, 103, and 303 – disclosure requirements
- SEC FRR (Financial Reporting Release) #36 – interpretation of MD&A disclosure rules
- SEC SAB (Staff Accounting Bulletin) #92 – loss contingencies
- SAS (Statement of Auditing Standards) #69 – gives authority to EITFs

Additional Areas for Discussion

Miscellaneous other points that may be interesting to discuss include:

- Corporate's approach to environmental management is quite fragmented. Rather than having a coordinated Environmental Management System, with consistent policies and top-level support, management's strategy has been random, piecemeal and faddish. Management has also tended to concentrate on window-dressing (see proposed policies in 3/25 Board Meeting Agenda).

- Upper management does not appear to support divisional management in their efforts to achieve environmental objectives.

- The point of this situation is that in the environmental area, unless Corporate fully supports the divisions' efforts to carry out corporate policy, management willingness to self-monitor and disclose will be greatly inhibited.

- Apparently, the hazardous waste tracking system imposed on the divisions by Corporate has serious problems. It is unclear, however, if the weakness is in system design or the way that Stain Division has implemented the system. In any case, when errors in the system resulted in a fine, Corporate assigned blame to Stain Division alone, which may be inappropriate.

- Stain Division cooperated fully during the internal audit, in the spirit of wanting to do what is "green". However, this cooperation was penalized by the allocation of the fine.

- The situation allows discussion of the role and consequences of an internal (environmental) audit program. Self-evaluation is essential for improvement, but can also lead to costly discoveries. Discussion of incentives is also relevant here, as well as the role of the legal department in internal audits.

- There have been many cases where banks have been held liable for cleanup of sites for which they have lent money.[11] Now, most banks require due diligence audits of commercial properties prior to lending on real estate. In this way, the bank can avoid financing high-risk land deals. Should a bank lend and later discover an environmental problem, the fact they conducted an audit can limit their potential liability.

- Organizational structure and performance evaluation issues are alluded to in the case. One could have a discussion about the complex motivational and behavioral issues that arise in structuring the organization and designing management compensation contracts to align incentives across divisions and down the corporate hierarchy.

For example, the internal cost accounting system has several choices for allocating cleanup costs associated with the Paint site: 1) allocate the cost to the Paint Division, with Paint Division handling it as a period expense; 2) allocate the cost to the Paint Division, with Paint Division handling it as a product cost (attached to inventory); 3) apply the cost at the corporate level as a period expense; and 4) apply the cost at the corporate level and capitalize it (to non-inventory asset accounts). If we assume that bonus targets are not adjusted by the Board, each of these alternatives will have different effects on divisional and firm-wide performance metrics, both now and (potentially) in subsequent periods, with corresponding behavioral consequences for the managers.

Comments on the attachments:

Meeting Agenda 4/25/93:

Note that all of the environmental options are superficial (i.e., more band-aids or fluff than anything else). The proposed corporate policies do not indicate a sincere commitment to be environmentally responsible. Subsequent "commitment" to environmental objectives appears to be motivated more as a marketing opportunity than through genuine concern.

Insurance Letter 5/4/94:

This letter suggests that managers are being caught by surprise because, historically, they have

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11 In 1980, the Bank of Montana - Butte lent $275,000 to a Company for a property where telephone poles were being creosoted. The Company failed in 1984 leaving a contaminated site with projected cleanup costs of $10 to $15 million. This potential liability is several times the bank's total capital.

assumed that environmental problems are covered by a general liability policy.

The letter also illustrates how insurance companies are increasingly unwilling to cover environmental remediation. In fact, under a proposed Superfund reauthorization, insurance companies would contribute a fixed "tax" into a common pool to be used for cleanup.

Some discussion of EITF 93-5 and the offsetting of contingent liabilities with a contingent asset (if one exists) could be relevant here.

Auditor's Letter 5/11/94:

This letter serves to illustrate a serious potential conflict between a firm and its auditor regarding a single, but material item and its accounting treatment.

Some discussion of auditors' deep pockets could be relevant. The possibility of "opinion shopping" might also be discussed.

Bank's Letter 5/12/94:

This letter serves to illustrate how reporting requirements and accounting rules can adversely affect currently existing contracts. In addition to the potentially-large out-of-pocket remediation costs, firms may face second-order costs associated with restructuring, refinancing its current debt, or renegotiating the terms of existing contracts.

Sales Division Memo 5/17/94:

The purpose of this memo is to illustrate the additional risk related to using an environmental message as the corporate slogan and marketing strategy in this industry. Apparently, management was not prepared for negative publicity that could undermine the corporate strategy. Environment management systems can reduce some of this risk.

The memo also points out that problems in one division can impact the performance evaluation criteria in another.

Legal Department Memo 5/17/94:

The purpose of this memo is to illustrate the pressures exerted on Corporate by its own legal department and its external auditors. The legal department is concerned about disclosing any information that could be used against the company in a legal proceeding or interpreted as an admission of guilt. The auditors want to ensure the firm provides full and fair disclosure of potential liability. The memo therefore illustrates the tradeoff between self-incriminating disclosure and revealing sufficient proprietary information about activities to keep the firm (and its auditors) from being sued ex post.

Tax Department Memo 5/17/94:

This memo emphasizes that structuring the sale of contaminated real estate can be complex with respect to tax. It also emphasizes that tax strategies should be a part of planning (i.e., structuring the deal) rather than a response to an already completed transaction.

Paint Division Memo 5/17/94:

This memo facilitates highlighting a number of behavioral consequences of a major event. It illustrates a dysfunctional competitiveness across divisions over allocation of the bonus pool. The memo can also be used to introduce discussion about the advantages and disadvantages of an authoritative versus participative organizational structure.

Historically, firms have not had to routinely address environmental issues. In addition, because many environmental costs are new and there is no established pedagogy for treatment, there is a tendency to treat all environmental costs similarly. Because of the potential magnitude of the cost and the unique nature of each, the accounting treatment of any particular cost must be carefully considered.