

PVC ALTERNATIVES COMMITTEE

ACTION SHEET

October 9, 1980

Health Committee
(Dr. Ted Tolkelson)

- Health data to support the need - or lack of need - for a lower VC standard.

Manufacturing Technology
Committee (R.W. Laundrie)

- Develop information as a basis for petitioning EPA to change the present standard.

Contingency Planning Assignments

B. F. Goodrich Company

- Clean Air Act (EPA)

Conoco

- Clean Water Act (EPA)

Tenneco Chemical, Incorporated

- TSCA (EPA)

Stauffer Chemical Company

- RCRA (EPA)

Diamond Shamrock Corporation

- OSHA

J. H. Heckman

- Contact Ethyl regarding the above Contingency Assignments.

NOTE: Assignment drafts should be submitted on or before November 17.

John Lawrence

- Contact TRW regarding status of its Phase I contract with EPA.

PVC SAFETY GROUP - ALTERNATIVES COMMITTEE

Keller & Heckman Offices
Washington, D.C.

Thursday, October 9, 1980
10:30 A.M.

S U M M A R Y

- 1 - It was agreed that initial steps be taken to develop contingency plans in the area of EPA, OSHA, and FDA. Draft plans are to be submitted to SPI by November 17. The committee will meet on December 5 to review these plans.
- 2 - The Health Committee is to be asked for an opinion as to whether there are health data to support the need, or lack of need, for a lower EPA vinyl chloride standard.
- 3 - The Manufacturing Technology Committee will be asked to develop information to serve as a basis for petitioning EPA to change the present standard.
- 4 - An inquiry will be made as to the status of TRW's standard review study.

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ATTENDEES:

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- 1 - Mr. Heckman reviewed the general concept of a contingency alert system (Attachment A) which has been used by one of SPI's other monomer safety groups. A general outline for developing such a contingency plan was distributed to illustrate the components of such a plan (Attachment B). After some discussion, it was agreed that there would be value in applying this technique to the various regulatory concerns of VCM and PVC.

Assignments for developing initial drafts of such plans were made as follows:

Contingency Planning Assignments

EPA

Clean Air	B.F. Goodrich
Clean Water	Conoco
TSCA	Tenneco
RCRA	Stauffer

OSHA

Diamond

FDA

Ethyl*

*To be contacted by J. H. Heckman.

Drafts of these assignments are to be developed and submitted to John Lawrence at SPI by November 17 for distribution to the entire committee. These drafts will be further reviewed at a meeting of the Alternatives Committee scheduled for Friday, December 5, at Keller & Heckman offices, at 10 a.m.

2 - EPA Strategies

Mr. Baise reviewed the possible strategies which might be pursued with respect to EPA's VCM standard as presented to the Steering Committee at the September 25 meeting (Attachment C).

After some discussion it was agreed that the Health and Technology Committees would be asked to respond to the following questions to assist in developing overall strategies alternatives:

- (1) Can the Health Committee reach a conclusion that there are no health data to support the need (or lack of need) for a lower EPA-VCM standard? It will likewise be asked to recommend the best way to support such a conclusion.
- (2) Can the Manufacturing Technology Committee develop a report to serve as a basis for petitioning EPA to change the standard? This report should identify areas which might be relaxed or modified to provide better interpretation of the present standard.

Note: It is believed that the Manufacturing Technology Committee may have developed some material on this subject at the time amendments to the EPA standard were being considered in 1977.

It was also suggested that inquiries be made to TRW as to the status of Phase I of its contract with EPA. If possible, it should be determined if there are still plans to meet with industry representatives. If so, will copies of their report be available prior to such a meeting? What is the overall timing?

3 - The meeting adjourned at 2:00 p.m.

Respectfully submitted,


John R. Lawrence
Technical Director

Attachments (3)
October 13, 1980

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THE CASE FOR CONTINGENCY ALERT SYSTEMS

Over and over again I have stressed that strategy is aimed at the future and built on assumptions. Assumptions are the platform or foundation of strategy. As with a house, if the foundation blocks come loose or slip, the structure will ultimately fall to the ground. Everyone knows this, but most of us tend to ignore it and begin to equate assumptions with facts. We therefore give little thought to contingency plans—what we should do in case of a damaging variance from our suppositions.

The reasons for this are easy to understand. We make our assumptions early in the strategic thinking process (as in any planning approach) and then subject them to review, argument, and modification. Because of all this and an unconscious concern that if we are wrong all our planning may be in vain, our minds put the uncertainty aside and raise the likelihood that the assumptions will occur to a high level. Thus it is important to take one more look at the assumptions and force ourselves to ask, "What if reality turns out different?" This is your starting point for building a contingency alert system.

To do an efficient job of thinking through plans for handling variances from assumptions, I would recommend the following steps:

1. Select your assumptions discriminately. Concentrate on those that have the most leverage.
2. Formulate other probable "what ifs."

This list of assumptions will help you very much to monitor your performance and to provide for contingencies.

Finally, perform the same task for the programs which will contribute the most to your financial results. This programs list will illustrate where your greatest challenges lie.

The "extent of change" review looks at the degree and type of change. It asks what changes are required of you, your key managers, and the workforce. Are you expecting a change of emphasis or a completely different type of behavior? Are you forcing the organization to undo the past and adopt new habits or perceptions? Is this change restricted to one part of the organization, or does it permeate the entire organization? Remember a simultaneous change in all levels of strategy will require a great deal of time and your personal attention.

Human factors follows the last analysis and probes the type of people, the organization, and measurement systems. Do you have the required number and quality of personnel? Is the current organizational structure appropriate to the new strategy? What about your compensation, incentives, and reward systems?

Remember that each of these reviews will require time, objectivity, and a different type of thinking. Don't be too ambitious. Select the reviews you think will pay the best results. I think it is better to use one or two of these completely than to be superficial in applying them all.

- 3. Develop your tracking plans for keeping tabs on variances from your key assumptions.
- 4. Carefully define the triggers, and assign responsibility for monitoring them.
- 5. Outline the options; don't formulate them in detail.

SELECT YOUR ASSUMPTIONS DISCRIMINATELY

You can't monitor all assumptions. No one has enough time or resources to do this. Further, it isn't really worth the effort since some assumptions are not that important and others can be dealt with readily on the spot if and when they are proved wrong. So as with your strategic options, you should be selective in your contingency survey.

There are three criteria that you can apply to help uncover the assumptions you should lay contingency plans for. These criteria are the impact on your results if an assumption is wrong, the degree of confidence you have in the suppositions, and the degree of influence you have to make them come true.

Impact

If you used some of the review techniques described in the previous chapter, you have already determined which of the assumptions has the greatest importance for your objectives. Gap analysis points out the key factors that affect whether net income and sales forecasts will be met. If a market doesn't grow so fast as you anticipate or you do not obtain the share you expect, your sales and income will fall below your targets. Further, there are specific assumptions you have made about the users, competitors, dealers, and so forth on which you based your quantification of results. Each of the techniques of strategy review highlights a different aspect of the assumption platform and helps you identify the riskiest elements.

Your impact evaluation should reflect on positive as well as negative contingencies. For instance a variance in events may result in a bigger opportunity than anticipated. The market may grow faster than expected, giving you larger potential sales. This possibility de-

serves attention since a failure to prepare for it may make you miss sales or give a prepared competitor a leg up at your expense. Positive impact anticipation can yield dividends as well as negative.

Confidence

When I raise the criterion of confidence with businessmen, they normally equate this attribute with probability. They are partially correct. It is important to ask how probable it is that the assumption will turn out to be reality. Obviously the greater the probability is, the less likely it is that you will need to change your strategy. But there is more to confidence than probability. You should also ask, "Why do I think so?" Every assumption is based on either data from the past or analysis of the present, your intuition of how events will move, or your judgment of yourself or others. I have found it useful to record the source of each assumption, since the source may have a great bearing on how valid and reliable the prediction is.

This line of investigation starts with the question: "Where did the information come from?" Then ask yourself, "Why did I draw this conclusion? Was the information in conflict with input from other sources, and why did I accept these findings rather than others? What has the source's track record been? Is the assumption close to or far from my past experience?" When you have answered these questions, you specify the degree of confidence you have in the assumption. This can be recorded simply as high, medium, or low or expressed quantitatively as a percentage.

Many managers estimated some years ago that the economy would continue to grow at the rate of 5 percent per year and that inflation would be held within the 4 to 6 percent range. These assumptions were based on the past and were confirmed by many forecasts distributed by professional economists and the federal government. Had you questioned any businessmen who held these views, they would have retorted that they were perfectly logical since they represented overall trends for many years, though there have been cyclical swings. I am not suggesting that we argue about the validity of particular assumptions but merely pointing out that they should be recognized for what they are, uncertain predictions, and that it is important to understand why they have been made at all.

Influence

- People and organizations outside your own enterprise are difficult if not impossible to influence and are ordinarily never within your control. For example many strategies call for some type of lobbying at either the state or the federal level of government. These efforts often fail to produce the desired results, and yet they are sometimes assumed to be automatically effective. This is not to say that lobbying should not be tried, but it does require careful planning and usually the cooperation of many other interested organizations. To take another example, even the degree of control managers have today over their own workforce is less than that exercised by businessmen two or three decades ago. Employees are less likely to follow an order to the letter, and more and more often they seek an explanation of it before they will act.

The point is that assumptions should be scrutinized to determine how much power you have to influence events in their favor. Those you have little control over may be worth including on your contingency list.

When you have applied the three criteria to your assumptions, you can decide how much each forecast needs a contingency plan, as Table 12-1 illustrates.

Table 12-1. Rating your assumptions.

Assumptions	Impact Rating	Confidence Rating	Influence Rating	Need for Contingency Plan
Dealers will carry our new line.	High	Medium (Source: sales force inquiry of dealers)	High	Low
Competitor X will exit from the medium-price market segment.	High	Low (Source: market manager's judgment)	Low	High

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As you can see in this illustration, one assumption is rated high for impact, medium for confidence, and high for influence, while the other evokes low confidence and is less within control. It is thus not critical to outline a contingency plan for the first, but the second requires one. The next task is to determine how accurate the components of the critical assumptions are.

FORMULATE OTHER PROBABLE "WHAT IF'S"

After the critical assumptions have been identified and ranked, the "what if" questions should be raised. There are some who argue that the most optimistic and pessimistic assumptions should be probed, stressing the need to prepare for the extreme possibilities as well as the most likely. This is an interesting exercise, but is otherwise a waste of time. I prefer that we think only about the *probable* possibilities.

Let's go back to Table 12-1 and the dealers' receptivity to your new line. Assume further that the sales force inquiry has turned up a 95 percent acceptance ranging from enthusiastic to lukewarm. This is the basis for the medium rating on confidence. Now, it might be useful to think about the effect of only a 75 percent acceptance. Many dealers carry multiple lines of merchandise, and if they aren't convinced that your new line is up to their standards, they can easily change their emphasis to competitors' products. In the long run this may mean that your position with them will decline, and it may even result in the loss of some of your top dealers. Thus you think through the consequences of the modified assumption so that you can decide whether you should be prepared to change your plan or construct an alternative approach if the level of optimism is inaccurate.

DEVELOP YOUR TRACKING PLANS

Deciding the *how* of your tracking procedures during the implementation phase of the strategy is the focus of your tracking plan, also called the monitoring plan. This step requires that you first

... of information that will enable you to know whether you are on target or not. In the case of the dealers in Table 12-1, this may mean surveys of end users that probe the reasons they are purchasing the product and further questioning of dealers to find out why they are enthusiastic or lukewarm. It may also require the services of outside agencies to collect data about the dealers' sales approaches and brand preferences. The second method involves the question of the reliability of the source of as well as the information itself. Will the source seek information directly or merely draw inferences from less specific mediums such as the newspapers? If we don't assess the source correctly, we may obtain misleading or inapplicable information.

You must next decide how much you want to spend on your tracking system. There is a whole area of decision theory dedicated to the question of the value of information. How much is it worth to you in dollars, time, and manpower to keep abreast of your environment or the condition of your resources? Information may be so difficult to obtain or so unreliable that it doesn't justify the effort required to collect it.

Finally, who is to be responsible for the monitoring? What will the person or group do to communicate the state of affairs? This assignment is critical to successful response, and it ties in with the next step in contingency planning, defining the trigger that signals when the variance from an assumption has reached the action point. There have been many cases where information was tracked well but communicated so ineffectively that the organization was still caught unprepared.

DEFINE THE TRIGGERS

Having thought out the system for monitoring assumptions, your next step is to identify the triggers that will activate the contingency plans. The need for these is obvious, but their definition is not. A trigger may be not one event or condition but rather a series.

A question in point: When should the president of the United States change his main strategy for dealing with inflation and use an entirely new game plan? Richard Nixon was elected president

after campaigning as an economic conservative. He stated that government controls were ineffective and that the free enterprise system should be given a chance to operate without government interference. Yet he did a complete flip and resorted to controls. What were the events that led him to change his mind—or to put it in our terms, what were the triggers?

In his case there were several conditions that arose simultaneously. First, there was the extraordinary rise in the rate of inflation, which moved out of the normal bounds of 3 to 4 percent up to 8 and 9 percent. Then there was unexpected government deficit spending. In addition the public was becoming increasingly unhappy with the loss of purchasing power and choosing Democrats in a growing number of elections for executive and legislative posts on all levels of government. So Nixon resorted to changing his strategy and ordered the imposition of wage and price controls. The results of his about-face are now history—a continuing rise in the rate of inflation, distress in the business sector, job layoffs, public exasperation.

I'm not trying to develop a case for or against Nixon's actions, but they do serve to illustrate how complex triggers can be and how extreme the response they may provoke. Nixon's reaction was to abort his prime economic strategy. Not all contingency plans entail such radical change, of course; nor are triggers necessarily multiple or complicated. For example the fact that your competitors do not follow your new pricing policies may mean simply that you revert to a level halfway to the old levels, changing only this element of your original strategy.

Another aspect of trigger identification is the designation of the person or people who will be responsible for initiating the change. In the case of national economic policy, Nixon reserved this task to himself, even at the expense of having his chief economic counselor resign and losing support from his major conservative backers. In the marketing function of a business, the responsibility for price changes may be given to the marketing manager or one of his subordinates. The point is that someone must be made accountable in advance so that the contingency plan can be implemented.

The Pearl Harbor fiasco illustrates what can happen when triggers are either not set or ignored. There is considerable evidence

- that the possibility of a Japanese attack was recognized and that contingency plans had been developed. One of the problems was that no one was really sure who was responsible for the execution of these countermeasures. In fact, there are reports that indicate that the written plans were locked in a safe and the authorized officers were not available when the Japanese activated the trigger by launching their attack.

Of course, Pearl Harbor may also demonstrate that triggers can't be set which are so close to the event or condition that there isn't a chance to do anything to minimize the impact except perhaps to run. The point to keep in mind is this: To be useful, triggers, like any other early warning system, must provide sufficient lead time.

With your triggers identified and monitoring responsibility assigned, your contingency alert system is fully operative. It will enable your organization to change direction if and when this becomes necessary. By providing thought-out responses to variances from key assumptions, the system gives you the lead time and the means to minimize the impact on promised results.

PROVIDE OPTIONS NOT PLANS

I have mentioned the need to have a plan of response which will be executed at the optimum time. Actually, this may be somewhat misleading. What I mean is not that you should prepare a detailed plan but that you should give some thought to the options that are available. It is important to remember that any plan should be aimed at the cause of the problem and not at the symptoms. Suppose that you have a complete, well-developed plan to handle a contingency and that the plan is based on one set of assumptions about the causes of such a problem. If your assumptions are wrong, any response you would make to resolve such a problem might do more harm than no response at all. Having a varied set of options available, however, would give you more flexibility and allow you to quickly choose the response that seemed most appropriate to the actual problem.

CONTINGENCY PLANNING FOR NONPROFIT INSTITUTIONS

Contingency options are equally important for the nonprofit organization. A hospital director may build his strategy on the assumption that Blue Cross or Blue Shield will obtain permission from the state commission to raise its rates. But suppose the commission grants only 50 percent of the requested amount or delays the approval for six to nine months. This may allow the "Blues" to reimburse the hospital only partially, which in turn may significantly reduce the hospital's cash flow. What are the options that the hospital could adopt if the assumption of total reimbursement was incorrect? How could the hospital trigger a change in its strategy before it was too late and it ran out of cash?

Universities, too, make assumptions which may prove incorrect—assumptions about the size of the student body, the professionalism of the faculty, and the continuing financial support of foundations, alumni, and government. What if the number of students dramatically increased in some disciplines and dropped off in others? This would mean the wrong mix of faculty and facilities. On the other hand, what if the government wanted to provide more funds for special research? Or a large company moved into the area and needed university training for their engineering or professional staff? The point I am making is that contingencies can be positive as well as negative and the lack of preparedness can mean a missed opportunity.

The 1975 fiscal crisis of New York City is an excellent example of the need for contingency options and for recognizing the complexity of making decisions. The "what if" question that should have been anticipated was the inability to continue obtaining financing. It was painfully apparent that options were not thought through. The crisis was compounded by the fact that the mayor's authority to change strategy was limited by the city council and even the New York state legislature. In institutions where authority or ability to act is restricted by law or the constitution, triggers should be set far enough in advance to provide the lead time to get the approvals necessary to avert a catastrophe.

APPLICATION TIME

Throughout this book I have stressed your need to think alternatives through and then select the one you prefer. If you have been following this advice, you will have developed alternate investment, management, and operating strategies. Since you have already dedicated time and effort to this development of alternatives, you may find it beneficial to review them to determine whether any could be used as contingency options. The reward of having alternatives is that you may have already completed your contingency option list.

If, on the other hand, you need more help in developing those options, take a close look at the following example of an education equipment manufacturer. As you read through the example, apply the procedure to your own needs.

This manufacturer has developed a marketing strategy based on the assumption that its state government will continue to provide aid to local schools to purchase remedial language installations. The state has allocated more than \$3 million a year to this effort in the past five years, and the company anticipates that the allocation will continue at this level for the next three years. As a result it plans to add new plant capacity in the state capital area to produce the language equipment. It has had 50 percent of that market segment, and this accounts for 30 percent of its total sales and 25 percent of its net income.

Using this and other information, the company constructs a contingency alert system as follows.

Assumption: The state government will provide \$3 million per year for the next three years for remedial language equipment.

Impact: If the assumption is incorrect, this will seriously hurt the company's sales and net income. Conclusion: high impact.

Confidence: This assumption is based on past experience. There are conflicting reports on the total education aid budget, especially with the change of administration in the state. The allocation could be half of the original. Conclusion: low to medium confidence.

Influence: This is a small business and has no influence. Other companies in the education business are much larger, and they will be interested in preserving their segment size. Conclusion: low influence potential.

Need for contingency plan: This is a must for contingency planning.

What if? The state may cut the program budget in half and spend the balance on teachers rather than equipment.

Impact: Sales down by 25 percent and net income much smaller than projected.

Confidence: This is a more pessimistic possibility of what the state government might do. It is based on scattered but mounting opposition to the program in the legislature.

Tracking. Full monitoring is needed because of the high impact of both assumptions.

Information:

- Government expenditures for education.
- Budget proposals submitted by state officials.
- Pressure groups that can influence the expenditure.
- Local school remedial language programs.

Sources:

- Budget documents.
- National Education Association publications.
- Speeches by educators, especially the head of the state Department of Education.
- Speeches by state officials, especially the governor and his major opponents.
- Reports on education to the legislature.
- Documents of special interest groups.

Budget: \$4,000 for the purchase of publications and visits to the state capital.

Responsibility: One marketing employee assigned full time.

Communications: Marketing manager will submit a monthly report.

Triggers. Three major warning signs exist:

1. The preliminary budget calls for less than \$3 million in remedial language aid.

2. There is public indication that top state officials are changing their commitment to this activity.
3. Reports by top educators charge that remedial language labs are not meeting learning objectives.

If any of these trends develops into an active threat, one of the following options may be executed:

1. Tie in with other manufacturers to lobby for education funds.
2. Promote the value of remedial language labs among local school authorities across the state to stimulate them to apply pressure in the state capital.
3. Promote the use of general language equipment for advancement of skills and possibly for foreign language learning.
4. Do a feasibility study of strategies for entering other geographic markets or possibly the college market.

Strategic Implications. Continue to base the strategy on the assumption of \$3 million in funding but be prepared for change. The responsibility for change lies with the marketing and manufacturing managers, subject to final approval by the president.

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13

THE STRATEGY SUMMARY A MEANS OF MANAGING BY STRATEGY

We have come to the end of a long and difficult journey, requiring large amounts of time and concentrated thinking. You have contemplated your mission, completed your analyses, carefully scrutinized your opportunities and threats, defined your potential objectives, and finally made your decisions. All these phases have involved your top managers and staff executives, and through discussion, reflection, and even compromise, you now have an overall business strategy.

This strategy provides you and your organization with a blueprint of the direction you want to take as well as the means to your end. The blueprint shows you where you are and will enable you to determine as time passes how far you have veered off course—if the strategy is understood by those responsible for its implementation and those who must continue to allocate the resources necessary for success. The problem is how to communicate the strategy to these decision makers and insure that they understand it. I have known many businessmen to underestimate this task and even if it is an unnecessary luxury. This is a serious mistake. It may be that all the work already completed will go unattended. There are two questions to think about: Why should investors put their money or managers their efforts into your business if they don't understand what you are doing and what they will get out of it? And how can managers below you implement something they don't understand?

October 9, 1980

FOR CONSIDERATION BY THE SPI PVC SAFETY GROUP
ALTERNATIVES COMMITTEE

OUTLINE--CONTINGENCY PLANNING

Purpose: To identify some responses to potential
[name of agency] regulatory activity.

Situation: 1. [name of agency] promulgates and enforces
regulations addressing chemical substances
pursuant to [number] acts:
a. [Name of Act]
b. [Etc.]

2-4. [Continue with general discussion of the
regulatory posture taken by [name of agency]
toward PVC/VCM and toward the potential
hazards presented by PVC/VCM, paying careful
attention to the approach [name of agency]
has taken toward other substances associated
with the same potential hazards.]

5. [Name of Act]
[Provide basic discussion of situation as it
relates to referenced act and repeat this
treatment for each act referenced in paragraph 1
above.]

What If:

1. [Cite relevant act or statutory provision]
[Insert description of regulatory action of concern. The concern is usually with the less favorable course of action. Using this format, list all potential activities of concern.]
 - a. Impact: [Low, Medium or High]
 - b. Our influence: [Low, Medium or High]

Tracking: **Information and Sources:**

1. [Cite relevant act or statutory provision]:
 - a. [name of source]
 - b. [Etc.; List all sources.]

[Possible sources include: direct agency contacts, other trade associations, Keller & Heckman, trade press, other industry sources, agency announcements, the Federal Register, public news media, member information, etc.]

Triggers: 1. [Cite relevant act or statutory provision] :
[Insert description of event which would trigger activation of contingency plans.]

2. [Etc.]

Contingency Plans: [Describe the plans to be implemented if any of these trends develop into an active threat.]

Trigger 1: [Contingency Actions
a.
b.
c.]

Trigger 2: [Etc.]

-3-

Anticipatory Action Underway: [Describe any actions being
taken by the PVC Safety Group.]

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BEVERIDGE, FAIRBANKS & DIAMOND

PVC SAFETY GROUP

October 9, 1980

Possible Strategies:

1. Rescind existing proposed '77 amendment.
2. Rescind existing vinyl chloride standard.
3. Rescind existing '77 amendment and oppose totally the proposed data gathering effort and subsequent amendments by TRW and EPA.
4. Oppose the proposed amendments because there is no health basis, but accept amendments favorable to the PVC Safety Group.
5. Work with EPA on revising standard to alleviate the PVC Group's complaints.
6. Do not oppose any EPA effort.
7. Work with Congress to amend § 112.