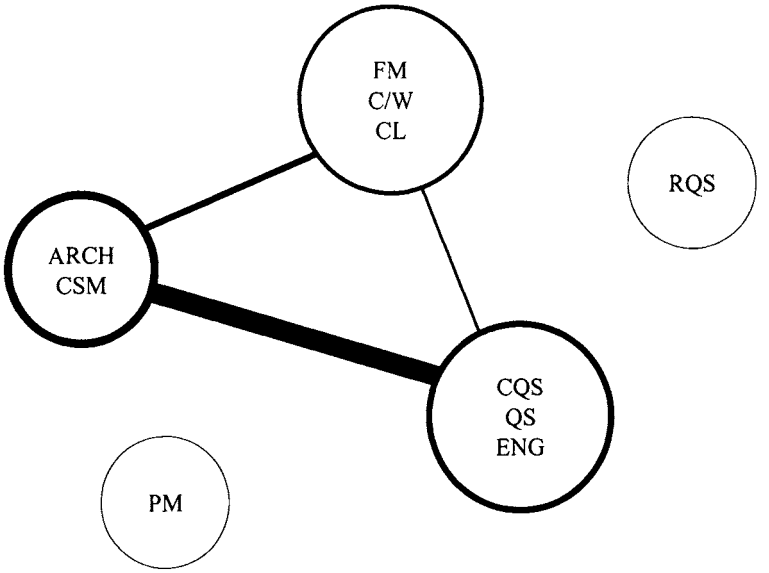


PM – Client's project manager
CSM – Contractor's site manager
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**Figure 6-1 Factional patterns during phase one.**

Figure 6-1 shows three factions and two isolates. The relative isolation of the client's project manager indicates that he was excluded from negotiations surrounding the claim. His mistake was to rely on the architect as his only point of contact with the project team, thereby making himself vulnerable to the architect's vested interests, which were best served by not widely publicizing the problem. Most noticeably, the architect and client's QS were in separate factions, supporting the emerging picture of the architect's desire to distance himself from the problem. Despite their separation, they did have a healthy level of communication, although the architect primarily acted in a receiving capacity, relying on the client's QSs to coordinate a response. Indeed, the architect, being in the strongest faction with the contractor's site manager, appeared to use the client's QS's advice to perform an important bridging role between the consultants and contractor. This would have enabled him to maintain control of the situation but at the same time avoid direct implication in it. As a further point, the engineer was by far the weakest member of his faction, only having contact, in a receiving capacity, with the client's QS. This is evidence of the pressure being exerted upon him to generate alternative earthwork support solutions to that proposed by the contractor. However, his strong connection with the contractor's site manager in the architect's faction was also evidence of his sympathies with the contractor's case. This eventually led him to "leak" information,

which equalized information differences between the contractor and consultants, thereby undermining the latter's bargaining position.

In terms of people's centrality to communications, there was no clear "source" or "sink" of information and therefore little sense of clear leadership during this phase. However, the architect and client's QS occupied the main gate-keeping positions and thereby, exerted considerable control over information flow. This made the crisis management process dependent on their relationship with the contractor, which was characterized by mutual suspicion and distrust. In essence, it appears that the communication structure that emerged during this initial phase contributed significantly to its inefficiency by making the crisis management process vulnerable to the negative relationships that existed among a few key individuals.

**Phase two**

Phase two began with a dramatic increase in forward momentum compared to phase one. The sudden involvement of the contractor's regional surveyor, an escalation of the crisis, a sudden movement toward more aggressive tactics, and a greater show of emotion brought about this change. In response, the consultant's policy of opposition and suppression in phase one was replaced by increased attention to resolving the problem. The level of opposition fell, parties were more concessionary, and there was a higher level of discussion about the contractor's claim. In essence, the regional surveyor's intervention induced a more productive and supportive phase where open discussion replaced the manipulative, coercive tactics that characterized most of phase one.

Collectively, these conditions led to a gradual decline in emotions, frustration and anxiety that was reflected in higher levels of more effective communication among project participants. This is illustrated in Figure 6-2 which shows the client's project manager in the strongest faction with the architect and client's QS. His increased involvement appears to have been a defensive response to the sudden escalation, brought about by the regional surveyor's (RQS) intervention. The engineer is now in a faction with the contractor's site manager and regional surveyor, his separation from the consultants reflecting a greater focus on resolving the problem rather than merely generating alternative earthwork support systems to the contractor's.

A further contrast to phase one was a higher level of direct contact among people and a higher level of equivalence in their personal communication networks. This indicated widespread access to similar information and a greater chance of mutual understanding of relative positions in negotiations. In phase one, conflicts of interest forced people to protect their information sources, thereby causing confusion, misunderstandings, frustration, and mistrust.

In addition to being more direct and open, communications were more centralized around specific individuals, indicating a more closely integrated and tightly knit team. By far the most central people were the contractor's site manager and the

client's QS, indicating their leading role in resolving the dispute. In contrast, the architect had a relatively low centrality compared to phase one, confirming the architect's continuing desire to see the client's QS take responsibility for the problem. The information gate-keeping structure was similar to phase one but it did not adversely affect information flow because of more positive attitudes among the consultants and the contractor.

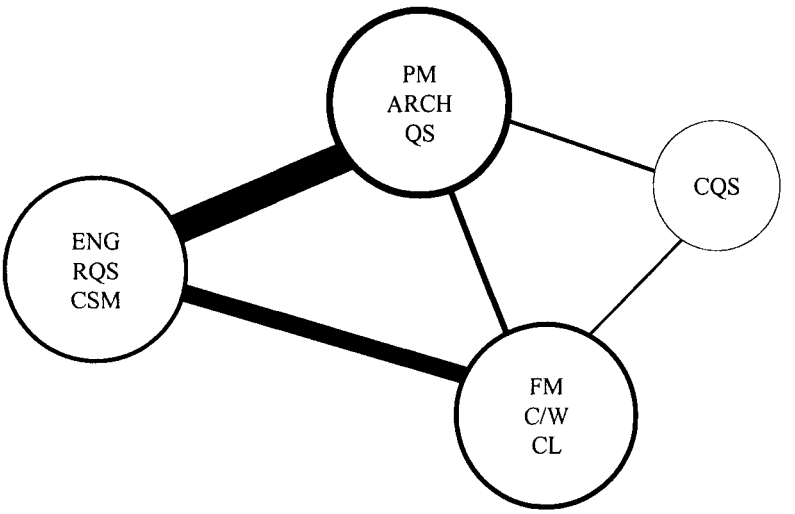


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**Figure 6-2 Factional patterns during phase two.**

## Phase three

Phase three coincided with the contractor's second claim and was characterized by a dramatic reduction in forward momentum compared to phase two. This was largely a consequence of the architect's tactic of ignoring it, which prompted the contractor to respond with warnings of delay, threats, and eventually, an act of escalation that involved the second intervention of their regional surveyor.

This increased sense of division and confrontation was reflected in the dominance of two loosely coupled factions, one comprising the architect and contractor's site manager and the other comprising the facilities manager and clerk-of-works. This is illustrated in Figure 6-3, the latter faction being primarily concerned with the technical challenge of resolving the collapsed water main and the former with the contractor's second claim.

During this phase, information flow increasingly centered around the architect and the contractor's site manager, indicating that they were considerably more knowledgeable about the ongoing dispute than other project members. This widespread ignorance of the on-going dispute, beyond the architect and contractor's site manager, would have been exacerbated by the gate-keeping roles they played within the project's communication network. This gave them considerable control over information flow among people, making the crisis management process vulnerable to their poor relationship. In a reflection of phase one, it would seem that the communication structure that evolved among people during this phase would have played a considerable role in the lack of forward momentum and acrimony that characterized it.

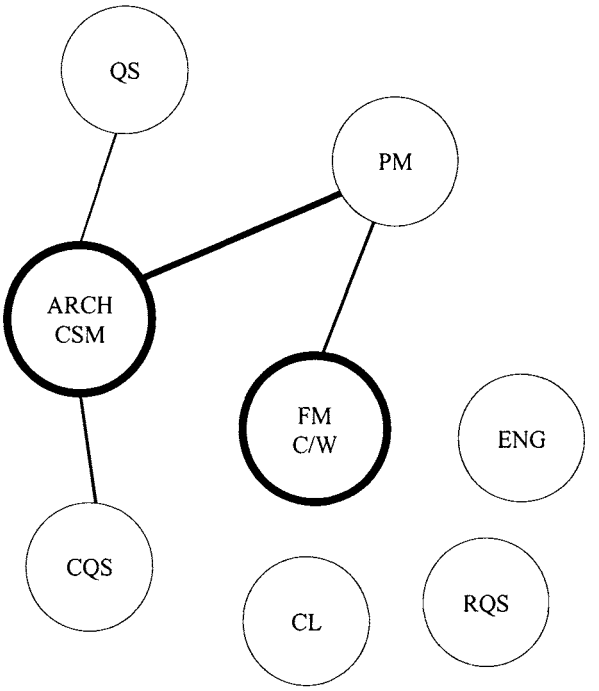


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**Figure 6-3 Factional patterns during phase three.**

**Phase four**

The final phase of behavior was characterized by a dramatic increase in forward momentum and an increasingly cooperative, compromising, and supportive atmosphere, compared to phase three. This was brought about by the second intervention of the contractor's regional surveyor, a tactic designed to resolve the stalemate surrounding the contractor's claim. There was also a greater focus upon problem resolution through open discussion and negotiation, which was reflected in calmer emotions, growing contentment and reduced rhetoric in communications. Patterns of communication were also less divided in that there was only one dominant faction, which consisted of the architect, client's QS, contractor's QS, and client's project manager. This is illustrated in Figure 6-4.

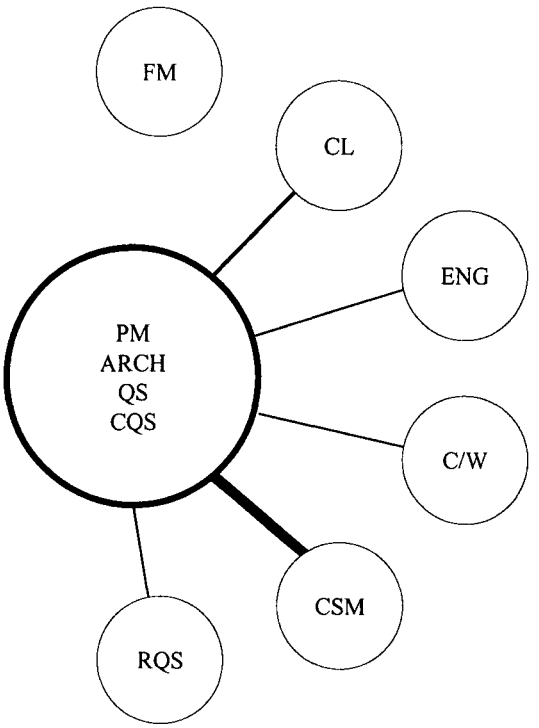


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**Figure 6-4 Factional patterns during phase four.**

Figure 6-4 indicates that one very tightly knit group who took control of the crisis, working closely to bring it to a conclusion, dominated the final phase of the crisis management process. While the contractor's site manager was excluded from this faction he was strongly connected to it.

The central players during this phase were the contractor's QS, client's project manager, architect, and client's QS. This reflects a breaking down of the contractor/consultant divide that had developed in phase three and an injection of consultant effort to get the problem resolved. In contrast to phase three, the architect played a far more dominant sending role, indicating that his policy of silence had ended and that he was driving the process toward a conclusion.

A particularly interesting development was the client's project manager's movement into a position of high "betweenness," which enabled him to exert greater control over the crisis management process. In essence, he presented himself as an alternative route for the contractor's communications thereby overcoming the dominating effect of the poor relationship between the contractor's site manager and architect in phase three.

Finally, in a further contrast to phase three, there was a rise in the equivalence of people's communication networks. This indicated a period of widespread communication that enabled people to construct a common understanding of the problem and thereby reach a mutually agreeable solution. Collectively, these communication patterns led to a healthy level of inter-personal communication and a far more positive period of activity than in phase three.

## CONCLUSION

This conclusion uses the cyclical model of crisis management depicted in Figure 3-1 to discuss how effectively this crisis was managed.

This crisis was self-manufactured in that it grew out of a relatively simple problem that was poorly managed. The problem that evolved into this crisis had laid dormant for some time, having been caused by an error in constructing the bill of quantities. Although the contractor had been aware of the problem for some time, he delayed notification because of an inherent distrust of and a conflict of interests with the architect. The rationale was that delaying the notification until the last minute would increase the probability that the response would go in their favor.

Thus, early inefficiencies were not of monitoring, as superficially appears, but of poor communication among monitors and comparators caused by a conflict of interest. Once notified of the problem by the contractor, the consultants, acting as comparators, decided that the problem was the contractor's. Essentially, they attempted to terminate the crisis management process at the first opportunity, forcing the project team back into a monitoring mode. This series of events are illustrated in Figure 6-5.

This tactic was a protection mechanism, motivated by self-interest and designed to avoid the problem, call the contractor's bluff, test the contractor's resolve, and transfer the onus of proof back onto the contractor's shoulders. In essence, the consultants attempted to keep the problem contained within the confines of their own power base by acting as both comparator and decisionmaker. Indeed, by avoiding the need to invoke higher levels of decisionmaking authority, the consultants managed to conceal the problem from the client's project manager. To reinforce this tactic, they became inwardly oriented and imposed strong group-norms, particularly on the engineer, to construct a highly biased definition of the problem from their own perspective.

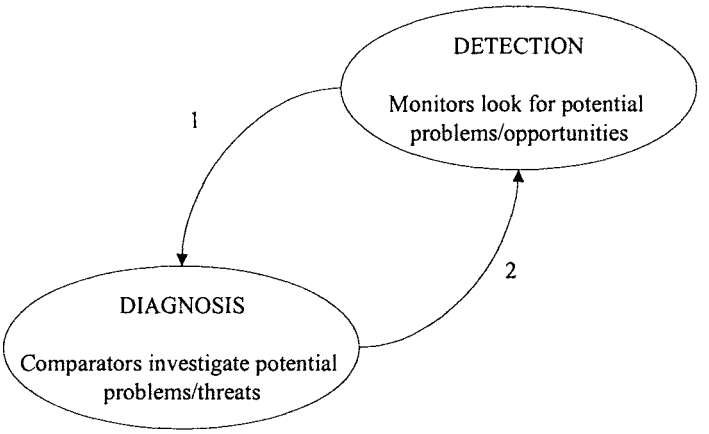


**Figure 6-5 Initial attempt to terminate the crisis management process.**

Faced with increasingly polarized positions, the contractor resorted to coercive power tactics by threatening the consultants with delays and an escalation of the dispute. Although this tactical escalation was successful in getting their claim recognized, the consultants made a decision that was outside their authority. While diffusing short-term tensions, long-term tensions were increased because the client's project manager, who had the necessary authority to act in a decisionmaker's capacity, refused to do so. Before sanctioning the consultant's decision, the client's project manager insisted on a reassessment of alternative earthwork support systems and in doing so, returned the crisis management process to a diagnosis stage, prolonging it and frustrating everyone concerned.

This series of events is illustrated in Figure 6-6 where the dotted lines record previous movements among the phases of the crisis management process.

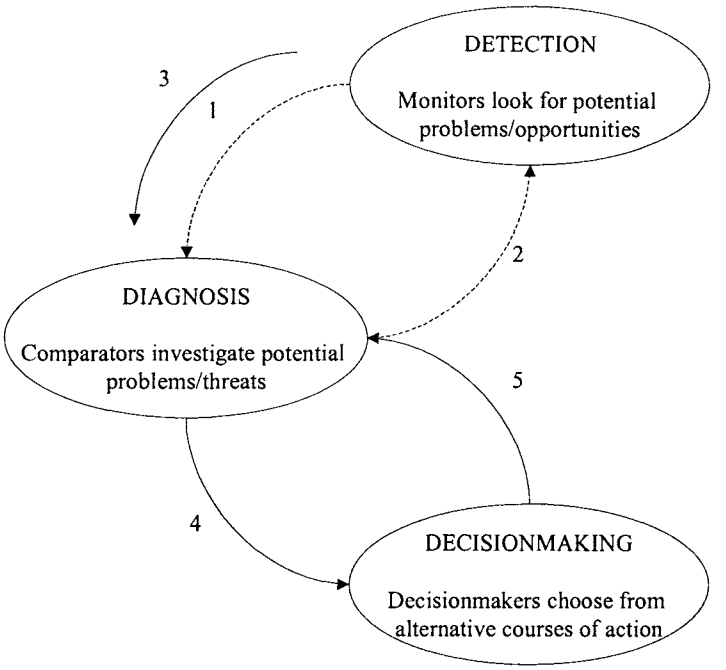


**Figure 6-6 Returning the crisis management process to a diagnostic mode.**

The client's project manager eventually sanctioned the claim but then, the earth bank to be supported by the disputed earthwork support system collapsed. This made the claim irrelevant and threw the crisis management process back into a diagnostic mode to resolve the new problem. This series of events is illustrated in Figure 6-7.

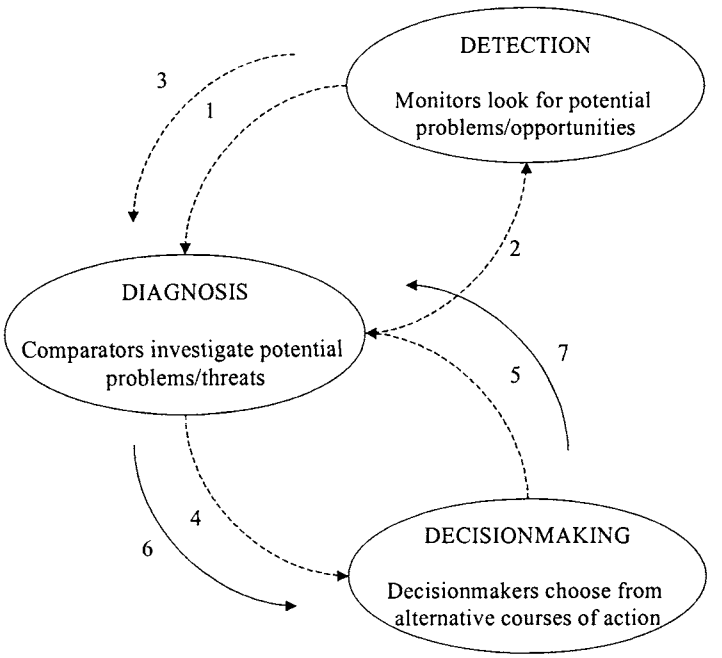


**Figure 6-7 Returning the crisis management process to a diagnostic mode again.**

Paradoxically, this sudden sub-crisis caused a temporary alignment of interests and increased cohesion within the project team because the contractor advocated a lower cost earthwork support system that was duly sanctioned by the consultants. This series of events is illustrated in Figure 6-8.

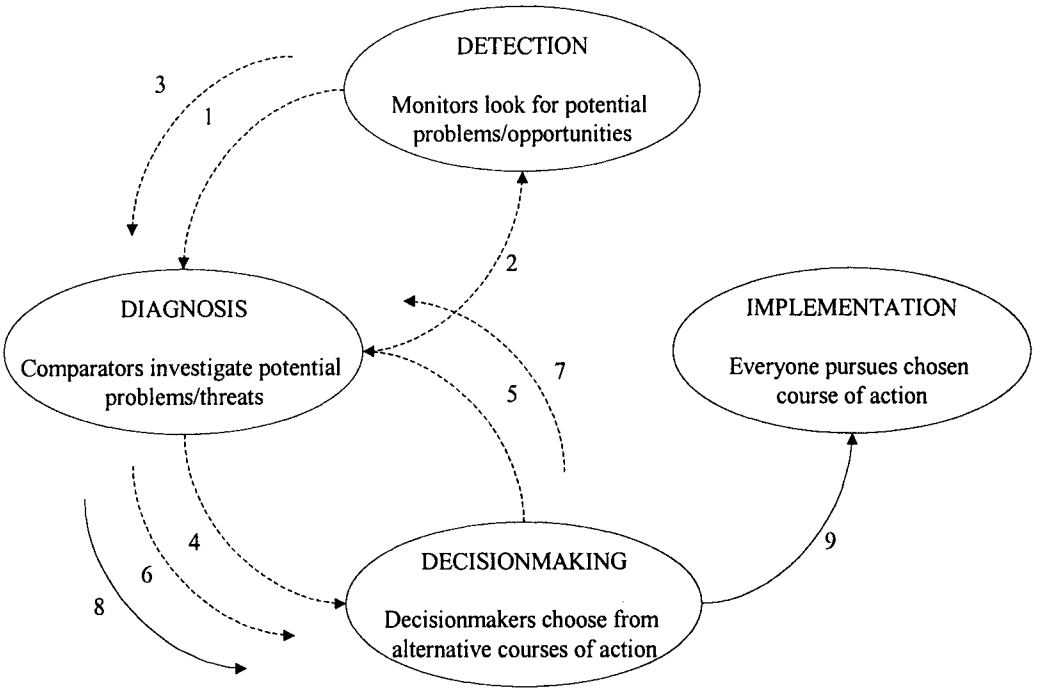


**Figure 6-8 The issue and implementation of a new change-order.**

Up to this point, the crisis management process as depicted in Figure 3-1 had not been a smooth cycle but one characterized by considerable inefficiency. In particular, the process appears to have been characterized by a considerable degree of repetition and procrastination in moving between the different phases of the crisis management process. Indeed, this continued because during implementation of the revised earthwork support system, the crisis management process was thrown into a second full cycle by the contractor's second claim for an extension of time. This is illustrated in Figure 6-9.

The need for a second cycle of the crisis management process was a direct consequence of delays caused by inefficiencies in the first cycle. The contractor had monitored these delays for some time, but in a reflection of the first cycle, mistrust of the consultants caused them to withhold their notification. Another similarity with the first cycle was that the subsequent diagnostic process was characterized by defensiveness on the part of the architect and a reluctance to recognize the problem. This led to a build-up of frustration and eventually a second escalation of the crisis. This initiated a new diagnostic process that involved a full consideration of the problem by all of those with vested interests in its solution.

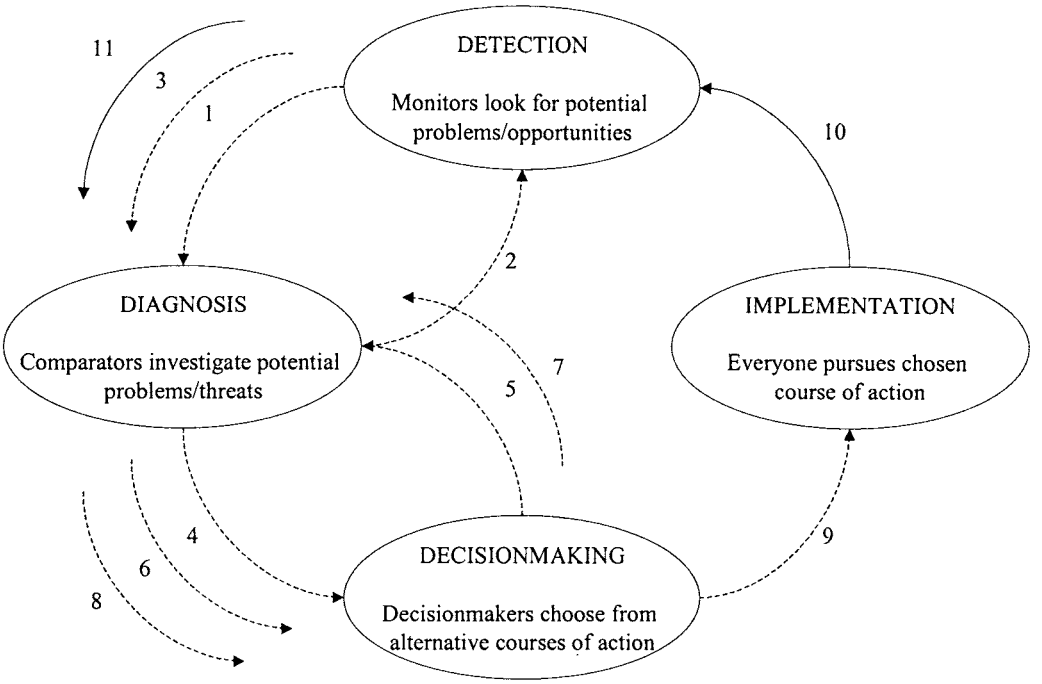


**Figure 6-9 A second cycle of the crisis management process.**

Eventually, after a convergence of views, the contractor's claim was granted and the project's completion date extended. These events are illustrated in Figure 6-10.

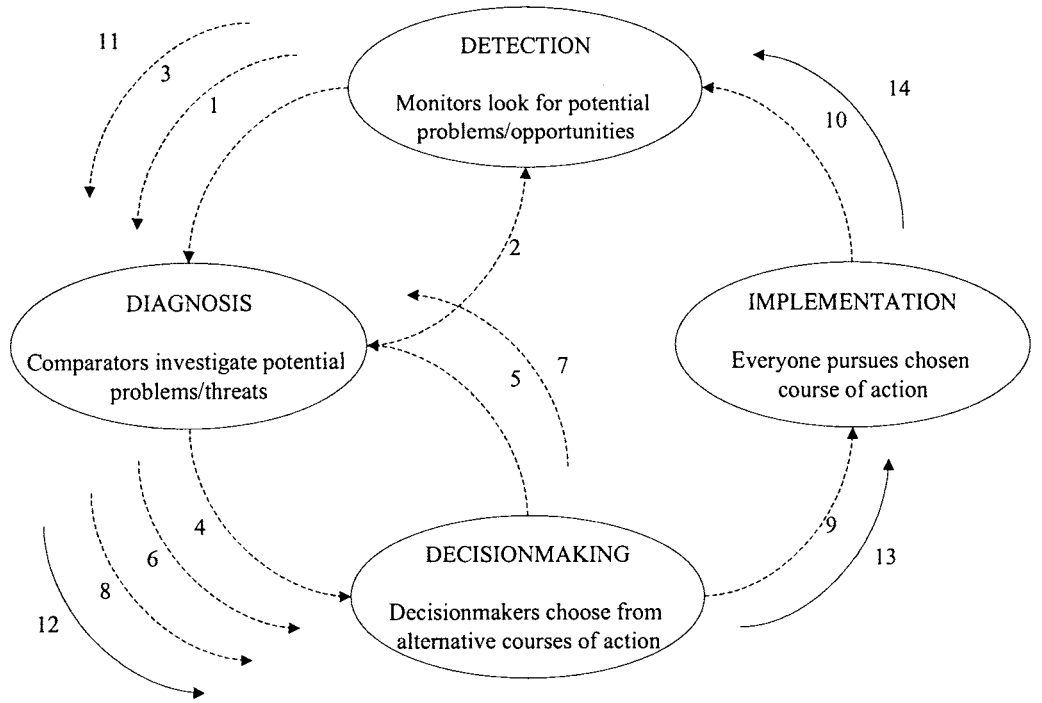


**Figure 6-10 The completion of the crisis management process.**