



NICOLE

A Network for Industrially Contaminated Land in Europe

NICOLE is a network for the stimulation, dissemination and exchange of knowledge about all aspects of industrially contaminated land. Its 125 members of 15 European countries come from industrial companies and trade organisations (problem holders), service providers/ technology developers, universities and independent research organisations (problem solvers) and governmental organisations (policy makers). The network started in February 1996 as a concerted action under the 4th Framework Programme of the European Community. Since February 1999 NICOLE has been self supporting and is financed by the fees of its members. Further information: www.NICOLE.org

Communication on contaminated land



Communication on contaminated land

Colofon:

Text drs. A.J.M. Schelwald-van der Kley,
Schelwald-van der Kley consultancy BV, NL
www.schelwald.nl

Review Philippa Scott, Shell Global Solutions

Pictures BP, Dura Vermeer, ENI, Enviars, Environmental Council UK, Fotografia di architettura Federico Brunetti, Gaz de France,
GGD Rotterdam, ICI, JM Sweden, NICOLE, Port of Rotterdam, SKB, TNO-MEP, TNO - NITG, Umicore, Visser-Westerweele

Layout Van Lint Vormgeving, Zierikzee, NL

Printing Quantes, Rijswijk



NICOLE
A Network for Industrially Contaminated Land in Europe

Preface

"Contaminated land risk assessment and remediation can either be driven by the need to protect the public and the environment or by brownfield redevelopment. Whilst brownfield redevelopment brings tangible benefits that can be seen by all, different stakeholder groups will perceive different ratios of 'costs' (in their broadest sense) to benefits. Where remediation is to protect public health and the environment, it might be assumed that all stakeholders would welcome remediation. However, experience has shown that responses can range from outright opposition to any action to extreme concern.

The communication of risks associated with contaminated land to those who are not directly involved in the project is unique in the sense that soil and groundwater contamination tends to be invisible and may therefore be perceived as a 'hidden danger' caused by others, with exposure being largely involuntary. It is also often disruptive and with no perceived direct benefits to many of those involved.

It is therefore a challenge for companies to communicate contaminated land issues to their stakeholders and to effectively communicate the possible options of the necessary actions or measures to be taken.

Experience shows that effective communication can lead to a better quality of solution for all parties concerned and to its wider acceptance.

NICOLE, the Network for Industrially Contaminated Land in Europe, recognizes the need for practical guidance on risk communication in the context of sustainable land management. As a follow-up to an earlier NICOLE project on risk communication¹ this NICOLE booklet provides further practical guidance and examples. Many industrial and service providing companies were willing to share their best practices and communication experiences. Their case studies are described in this booklet along with the key communication lessons distilled from them. I trust that this booklet will be both enjoyable to read and the key messages valuable when considering the format of your own communications with stakeholders on contaminated land issues".

Steve Wallace
Chair of NICOLE & Head of Environment Secondsite Property

¹ *NICOLE report: Risk communication on contaminated land, 1999. DOW Benelux NV, Shell International Oil Products BV, Salvay S.A., Element Consult, NDK, The Questar Centre, Schelwald-van der Kleij BV, TNO-MCP*



Preface	3
An introduction by the author	5
Proactive approach	6
Trust & credibility	12
Public & (risk) perception	20
Emotions & Control	26
Planning & Timing	32
Openness & Transparency	40
Clear Language	46
Cultural differences	50

What is the key to successful communication?

While enthusiastically collecting all the case material for this booklet and interviewing experienced environmental and communication managers, I tried to distil common, basic principles and find the key(s) to successful communication. The first thing that struck me was that most companies were quite willing to share information and were quite open about their communication experiences, either good or bad. Being open and honest is also one of the key principles for successful communication. I also discovered that most companies put a lot of effort in their communication process with stakeholders and are usually well equipped to do so. Of course their reputation may be at stake, but the driving force usually lies deeper. As the case studies came from many countries, it became apparent that cultural differences need always be taken into account. What works in one place doesn't necessarily work in another. Involving and working with local people, who are familiar with the local customs, appears to be a wise strategy.

In the end it all seems to come down to a few basic communication principles, such as treating people with respect, listening to their concerns, involving them and taking them seriously. Not surprisingly emotions come into play, as soil contamination often affects the main things people care for, like their personal health, the health of their loved ones and the value of their property. So addressing technical

issues alone is a strategy that nearly always fails. Another basic principle is to do what you promised to do and do it on time. Not obeying this rule greatly jeopardizes an organisation's trustworthiness. But perhaps one of the main communication lessons that I noted from the cases is that proactiveness pays off. Proactiveness means not waiting for problems to surface, having a structured communication system in place and building up trust before it is needed. Maintaining good relationships is based on mutual respect and regularly communicating with stakeholders, such as the local communities. It is the socially responsible thing to do. Like one of the company communication managers I interviewed nicely put it: We owe it to the communities where we operate and we owe it to them that we operate!

Of course there is more to communication, than can be described in this brief introduction (or even in this booklet). Nevertheless the cases, for which I owe my thanks to everyone who contributed, cover an interesting range of issues. In particular, I would like to thank Philippa Scott of Shell Global Solutions for reviewing the booklet and giving many valuable comments.

Enjoy reading the case stories!
Lida Schelwald-van der Kley



Proactive approach



- Risk communication should not be considered in isolation. It should be part of a proactive approach to community liasons
- The success of a project often depends on the interrelationship between communication and technical flexibility
- Do not wait for problems to surface; Be proactive
- Proactiveness pays off; Plan to talk to people, get their views; you do not necessarily know what they want
- Take full responsibility and resolve the situation as quickly as possible; Make the start visible

- *Communication should be a planned part of any project*
- *The details need to be site-specific*
- *A proactive strategy pays off*



Communication: a key part of environmental management

When a new company acquired a contaminated site, they decided to clean it up using a novel remediation technique. Local residents living within a specified radius were informed of the proposed work and advised that they could contact the company for further information. They were also given the opportunity to visit the site at a given day. Overall, the company's approach to communicate with regulators, employees and the local community was a proactive one and it was keen to be as open and honest as possible. As a result, the local community exhibited little concern or anxiety towards the remediation work taking place on the site. This reaction was almost certainly a result of the fact that the project team took time to think about people outside the company and communicate. A company attentive to its environmental impact and performance should include communication as a key part of environmental management. This is often more important when dealing with unseen issues that can readily ignite fear.

Dealing proactively with a legacy of the past

"Proactive communication and building positive relationships with key stakeholders over many years proved invaluable when it came to handling one of the biggest environmental issues ICI had managed", according to Kay Duvall, PR and Communications Manager with ICI.

In 1993 ICI began a voluntary assessment of the legacy of 160 years of industrial activity on and around the UK Runcorn site. Part of this work aimed to investigate if the past disposal of industrial and chemical waste in the Weston Quarries (an old excavation) could pose an unacceptable risk to people or the environment. At that time the company made a commitment to deal with any issues it identified appropriately and responsibly. And indeed in 2000, investigations revealed that subsurface vapour transport of volatile chlorinated hydrocarbons formed a potentially significant migration pathway towards some of the adjacent housing.

"In January 2000, we communicated our findings to the local Weston community, made up of over 500 households. We had found there was a potential for the indoor air quality in a number of properties to be affected by the historic waste disposal and some indoor air monitoring would be required. Although it was likely any impact would be limited, the extent of the area potentially affected was unclear. In fact, it was this initial uncertainty that provided some complex communication issues to deal with.



wished and sell their property to ICI. The company maintained these properties until the extent of the issue had been delineated and those that were unaffected could again be occupied.

Other arrangements were put in place to protect the value of property belonging to residents who remained in the village throughout the investigations. In addition, we ensured local business income was not adversely affected and that we worked with the community to improve amenities in the village, such as providing a playground and enhanced educational resource at local schools.

Quite naturally the immediate reaction was one of wide-spread concern as no definitive reassurance could be given at that time. In anticipation of this, and in recognition that the findings were likely to have a detrimental effect on the market value of some properties, we put in place a community support scheme, part of which enabled residents to move from the area if they so

- *Take responsibility*
- *Listen to concerns and respond appropriately*
- *Ensure the well-being of the community*
- *Provide open and honest communication*
- *Resolve the situation as quickly as possible*
- *Work with independent experts*

"We also laid down some very clear principles at the start of our communication programme which helped guide the way in which the issue was handled:

These included:

- To take responsibility for the consequences of ICI's historical waste disposal activities.
- To ensure the well-being of our community and employees remained top priority.
- To continue to provide open and honest communication and encourage feedback.
- To continue to work closely with independent experts to broaden the knowledge of the health effects, if any, of HCBD.
- To do all we could to look after the interests of those families in whose homes HCBD has been detected.
- To resolve the situation as quickly as possible.
- To maintain our commitment to help Weston remain a thriving community into the future.

"The conclusions of the investigation revealed that the area affected was confined to a number of properties west of North Quarry and a total of 37 were demolished as a consequence. As the majority of the village was unaffected, remaining houses have been sold and village life has very much returned to normal.

"Throughout the programme of investigation we maintained a proactive and structured communication strategy. We built on relationships already established and involved residents in one to one meetings, focus groups and public open events where we encouraged the community to discuss issues of concern with members of the management team and external experts. We were keen to enable residents to have a two-way dialogue with the company throughout investigations, and set up a 24-hour free-phone information line, manned by people with considerable ICI experience.

"We strived to maintain regular and consistent communication with residents and other interested parties through a series of communication activity. We were keen to provide the community with the information they required, and to provide answers to questions. In addition, we put great emphasis on the need to listen to concerns and respond appropriately.

"We maintained positive contact with other stakeholders throughout, including the local authority, regulators and MPs. Regular briefings were carried out with regional and national media - and apart from

some attention-grabbing headlines, on the whole, coverage was balanced. Local press, in particular, took an active interest in developments and were keen to portray a factual account of progress.

"Was our programme of communication successful? Perhaps the community of Weston would be best placed to make the judgement. Of course, we came across a wide range of emotions from suspicion and fear, to anger and resentment. However, we built many positive relationships with residents and their representative groups and established some significant trust and credibility. No doubt, there are things we could have done differently, but based on the feedback we have received from the community, we believe, in essence, we got it about right.

- *Maintain a proactive and structured communication*
- *Enable residents to have a two-way dialogue with the company*
- *Built on relationships already established*
- *Maintain positive contacts with other stakeholders*

"As stated earlier, one of the most important lessons learned, is that proactive communication and developing positive relationships with important stakeholders - both when times are good and not so good - is a vital element of responsible business practice." ■

Kay Duvall,
PR and communications Manager, ICI, UK

Example

A (seemingly) slow starter

A company, dealing with soil contamination, stated that remedial activities would start as soon as possible but the information was not very precise. They immediately started organising the special equipment for remedial actions. In the perception of the villagers and the authorities, however, the 'start of remediation-activities' would only have started at the moment when the excavation of polluted materials began. As a result they regarded the company's behavior as negligent or, at best, as a 'slow starter'.

- *Key misconception: 'Digging is doing'*
- *Make people aware that: 'Thinking is doing'*



Interview

A fast response

**Dear Citizen,
On behalf of the City of Zaanstad a large scale soil investigation will be performed starting Tuesday April 20 and ending Thursday April 22, 2004 at 110 garden plots situated in the proximity of the former gasworks site.**

This is taken from a letter that was sent by the authorities to the community. It was sent as soon as it was found that the gardens in the neighbouring area might be contaminated as well. There were no records to help identify which gardens may contain the contaminated material. So the situation was expected to be highly variable between the gardens.

The response of the authorities was quite fast. Just about a week after the authorities expressed the need for thorough investigations in the gardens to Tauw consultancy, samples were being taken in individual gardens in the area around the gasworks site. As expected, the con-

- *Reassure householders that their gardens or homes are not going to be demolished*
- *A fast response works out quite well*

minant situation was indeed very variable. The detailed investigation of the gardens in April 2004 revealed that there was only one garden where the concentration of cyanide was at a level requiring further attention. A thorough risk assessment confirmed that the contamination did not constrain the use of the gardens and that the contaminations did not present a health risk for the residents.

The fast response of the authorities, along with the enthusiastic co-operation of the consultancy firm, who prepared and executed the investigation in a very short time span, worked out quite well. Nearly all residents gave their permission for the investigation. Together with the extensive risk assessment, this fast response turned out to be a good basis for risk communication. ■

Daniela Lud,
Tauw BV, the Netherlands
also on behalf of the
Municipality of Zaanstad, NL



Trust and Credibility



- Build-up trust before it is needed...
...Stakeholder participation offers possibilities to build trust
- Public participation is not the enemy of efficiency
Working together can be beneficial
- Trust should be based on mutual respect
- Develop positive relationships with stakeholders-
both when times are good and not so good;
Work together for a better environment
- If the messenger is not considered trustworthy
than the message will never be:
work with credible sources & spokespeople

- *Involve local people in the decision making process*
- *Working together can be beneficial for a succesful project*
- *Give people access to data and information*



Public participation in a landfill construction

A new landfill was planned in an agricultural area in the Northern part of Italy. The landfill fell under the responsibility of the regional authorities. The authorities very actively communicated the details of the project to the local people, being mostly 'wealth farmers'. When the farmers proposed to form a small group comprising technical experts, the authorities helped make this happen. The technical group, consisting of three environmental consultants, acted as an intermediary between the authorities and the farmers. The authorities gave permission to this group to visit the site during the work and to see the Quality Assurance and Control operations in place. The technical group also had access to the field data and interpreted them for the local farmers. Through this technical group, the local people participated in the landfill construction and felt they contributed to the decision making process. As a result the operation proceeded successfully as planned and locals were comfortable with the results.

Claudio Mattalia,
Enviars, Italy

Turning a crisis into a positive event

Historical background

This case centres on a heavily industrialised area; a hub for the petrochemical industry and related peripheral manufacturing. Historically industry in this area had a poor track record with the community. In recent years significant efforts had been made to improve relationships with local communities, reduce environmental emissions and open communication channels. All round the situation was slowly improving. Communication channels were open, however trust was not yet well established.

The problem

Against this background one of several pipelines leaked petrol from a tiny hole in the vicinity of a residential area. The leak went undetected until residents smelt vapours coming from manholes in the road. People were understandably concerned and contacted the regulators and pipeline owners who immediately implemented rapid response actions to safeguard human health and the environment. A traditional risk based approach was adopted. This focused on receptors of concern, taking the necessary steps to eliminate the potential for harm, until the situation was better understood.

As investigations progressed and the nature and size of the leak unfolded, the company acted swiftly using industry best practice. Within 3 weeks an

- Address social needs as well as technical issues
- Understand peoples concerns
- Face to face communication works well in most situations - this takes time, effort and a dedicated team
- Keep explanations simple and honest, but be prepared to go into detail if people are interested
- A picture is worth a thousand words
- Visualise the situation under the ground to share conceptual understanding
- Tell people what the options are and let them be part of the decision-making

undeveloped wasteland was transformed into an efficient remediation site. However the rapid, responsible actions of the technical team seemed to have little effect and local residents were concerned and unimpressed.

The company was certainly faced with a challenge if it was to win back trust and prevent escalation of the situation by the media.



Before and after

Social issues - regaining trust

To address public concerns a three pronged approach was developed:

1. A 24 hour helpline was set up
2. Daily visits to residents in properties immediately adjacent to the remediation site were initiated; and
3. Regular update meetings were organised for all interested parties at the local school.

These forums were used to listen to concerns. These were then reviewed and where possible, acted upon. It was often surprising how easy it was to help alleviate people's fears through explanation. The initial community meetings were scenes of healthy debate. Local lobby groups saw them as opportunities to voice concerns about unrelated issues. It became clear that the local community disliked the aggressive behaviour of the environmental activists and attendance at meetings dropped. The community had concerns that the unrelated negative press would reduce the value of their homes.

To address these concerns an alternative approach was used and meetings were restricted to the residential community. In this way people were more comfortable to share their concerns and the company was able to take steps to address them directly. Efforts were made to improve the visual appearance of the remediation site by burying the hydrocarbon extraction wells, planting indigenous trees and landscaping the area. To address concerns about noise the entrance to the site was relocated and a timber fence was erected.

It certainly helped that the refinery manager was very involved and dealt with the situation personally. He took full responsibility for cleaning up the leak and gave assurance that the situation would be rectified. The fact that the company was genuinely concerned about the disruption, involved the local community and was keen to do the right thing helped resolve the matter in a way that was finally accepted by all parties.

The outcome

Remediation was able to proceed unhindered. The community had a direct route to voice concerns and could be confident that these concerns would be taken seriously and acted upon appropriately.

Lessons Learned

- Contaminated land management requires more than technical expertise.
- Social issues are also important and should be considered from day one. In some instances these issues may not directly relate to the contamination in question. Nonetheless it is helpful to address them if at all possible.
- If projects are planned with commitment to both technical and social elements successful outcomes are more likely to be achieved. ■



Interview

Phurnacite Dialogue: finding a way forward for the clean up of contaminated land

In 1995, the Welsh Development Agency (WDA) submitted a planning application to Rhondda Cynon Taf Borough Council (RCT) proposing the encapsulation of tar contamination in deep, heavily-lined cells on a former industrial site. This was met with fierce local opposition and after a period of almost six years, the application was rejected. It was then, in late 2000, that the WDA approached The Environment Council to convene a stakeholder engagement process to seek resolution and find a mutually beneficial solution.

The derelict land covered an area of 58 hectares in Abercwmboi and was formerly used for the manufacture of Phurnacite and Ancit smokeless fuel. The plant comprised two separate processes, with the original one, dating from 1939, having caused the most contamination. Plans for remediation of the now demolished plants had been a matter of debate since the early 1990's.

Who was involved?

The Environment Council convened and facilitated a stakeholder group comprising the local community, Bro Taf Health Authority, landowners, officers and members from both RCT and the National Assembly for Wales, Groundwork and the Environment Agency.

Stakeholder participation

The process began with a series of one on one meetings with individual stakeholder groups to establish whether an ongoing wider dialogue was worth pursuing. Significant interest was expressed, and a main group meeting (a public meeting) was held in September 2001. This was quite a difficult meeting because there was a long history of dispute between those present. Despite this, participants were able to agree to the proposed negotiated settlements and two working groups of about 20 representatives were set up. One group was to begin work on treatment for the contaminated land (Treatment Working Group) and the other had the remit to ensure the wider community was kept informed of progress (Community Liaison Working Group). Some working group members sat on both groups.

- Facilitate the formation of a stakeholder group
- Stakeholder participation may help in finding a mutually beneficial solution
- Communicate in plain language that is not too technical,
- Dialogue helps to find a way forward

The community group agreed to employ a community liaison officer who would be the link between the treatment group and the wider community. Tasks included issuing newsletters and delivering them to the whole community as well as holding 'surgery sessions' once a month where people could ask any questions they had about the process or give feedback to the group. Part of this was to ensure that communication was in plain English and understood by all (as at times the details became very technical). Eventually the two working groups merged as trust was developed and the community group's role was taken on by the liaison officer.

Investigating the site

The treatment group undertook an extensive new site investigation using an environmental consultancy, which was appointed jointly by the whole stakeholder group. This was considered the best way to ensure participants could trust the results of the investigation. From this the group was able to carry out an appraisal of all possible remediation options, which had been tested on similar contaminated sites in the UK, using a generic set of criteria. These criteria included; community perception both locally and at destination, health impacts for the community, environmental risks, effects on local image, cost, technical feasibility and regulatory approval.

A remediation strategy

The working group recommended that their preferred option for dealing

with the tar and pitch material would be reuse/recycling (e.g. reuse as a fuel or as a road tar) if the material could be separated from other waste in the pits. However, it was found that the reuse/recycle option was not viable as current technologies are not available for such large-scale treatments for this type of tar waste. Therefore, the second option of moving the 200,000 tonnes of material from the two tar waste pits to specially licensed landfill sites was pursued. This recommendation was for the removal to be by rail although it was acknowledged that transport by road would be acceptable if the implementation of the rail option was too lengthy.

Agreeing the strategy

The working group reported back to the main group at regular intervals throughout their work to check that they were on track. In July 2003, the new remediation strategy was presented at an open meeting in the village and was agreed by all present.

As a result the WDA submitted a new planning application to RCT in April 2004 for the removal of the tar waste to landfill by road, which was approved in August of the same year. Once this phase of the works has been carried out the next phase of remediation can begin which could include: bio-remediation of the organic contamination if viable after field trials, coal recovery where possible to minimise the risk of combustion and some concrete removal in key areas.

Outcomes

This project demonstrates that it is possible, through public participation, to achieve a positive outcome to a seemingly insoluble problem. Although it has taken over three years and been resource intensive both in terms of money and people's time it has provided other beneficial impacts which include:

- Increased trust and relations between all parties involved
- A solution has been found to an environmental and social problem which had caused dispute for over a decade
- The solution will benefit the whole valley as an eyesore will be removed and the land will be reclaimed. This will benefit the whole community when it is put to use and may provide income and employment to the area.

David Warren,
*Dialogue Co-ordinator, Stakeholder Involvement Unit
The Environment Council, London, UK*



Before and after

Public and (risk) perception



- Perceptions may change over time
- There may be a discrepancy between the risks perceived by experts and the way in which risks are perceived by the public
- Denial does not work; The impact of perceptions is as real as the health risks are
- Vague threats are more frightening than having a clear picture of the situation
- Take the fears of people seriously and be willing to take steps to address these even if they are not necessary from a technical perspective

An understanding of local concerns is crucial if contaminated land management solutions are to meet the needs of the general public



Comparing risk perception in Scotland & Germany

A comparative study in two industrial towns, Grangemouth (Scotland) and Ludwigshafen (Germany) revealed the contrasts and similarities in the ways that people deal with risk. The two towns are built around a once dominant petrochemical industry, undergoing rapid change. In both towns people voiced more concern about the impact of accidents than day-to-day pollution or health risks. When people in either town talked about risk, they spoke of trust, along with familiarity and loyalty to the company. Yet the two towns presented very different pictures. In Ludwigshafen, the chemical industry was trusted because it enjoyed wide public trust and pride and there was implicit confidence in regulatory standards. Even so, limits to this trust were increasingly apparent as a more sceptical attitude to corporate safety claims was emerging. By contrast, in Grangemouth public trust in industry was limited and distrust prevalent. Regulators were criticised for too cosy a relationship with the companies and with limiting Grangemouth residents to merely a token role in decision-making. These decisions directly impacted the communities and affected their town. Although the general expectation was that environmental risk issues have generally aroused greater concern in Germany than in Britain, scepticism and distrust of industry and regulatory authorities have been found to be much greater in Grangemouth.

For more information:

'Understandings of environmental risk in two industrial towns: a comparative study in Grangemouth and Ludwigshafen' : www.agf.org.uk./pubs/publications.shtml

The impact of perceptions is as real as the health risks are

Two important aspects of the management of contaminated sites are health consequences and risk perception, according to Fred Woudenberg. The health consequences seem to be the most important of the two, but in practice this is not always true. The health risks of living on or close to a contaminated site are usually small. The perception of risks can be considerably larger. Experts and responsible authorities often think that the perception of the public is mistaken and irrational. They then try to correct the mistaken perception by the dissemination of information containing the "true" facts about the health risks. This nearly always fails.

This failure is illustrated in the case of Kralingen. Kralingen is a quarter in Rotterdam. In the West part of Kralingen was a gas factory between 1854 and 1928. The gas production resulted in soil pollution with several chemicals, such as polycyclic aromatic hydrocarbons, benzene and hydrochloric acid. Local residents discovered the pollution during building activities in 1980. Local authorities, responsible for the clean-up of the former gas factory site, gave only very meagre information, but they did say there was very little reason for concern. The inhabitants did not believe the reassuring answers to their questions and

began to worry. As a result a twenty year struggle began to get the pollution problem acknowledged. The struggle ended in a 100 million Euro clean-up operation. There are good reasons why the public is only seldom convinced by information given by experts or authorities. People are involuntary exposed to contamination and are powerless. These factors often lead to indignation or anger. The only people to fight their cause are authorities. All too often the public does not trust them and suspects them of withholding information. This leads to other worries. The information the general public does get often comes from the media who are more interested in selling news than being helpful. The media often focus on headline grabbing information, cover ups and guilty parties. These factors combined readily explain why the general public can be afraid while experts and responsible authorities say they should not be. The performance of experts and authorities can even increase their fears. The impact of perceptions is as real as the health risks are. They can have huge societal and economical impacts and in some extreme cases lead to stress related effects. Therefore the management of risks must incorporate risk perception as a central aspect and it must ensure good risk communication. In Kralingen, the health risks of people living on the polluted soil were monitored conti-

- Denial does not work
- Risk communication needs to address community concerns
- Be open, honest and prepared to go the extra mile
- Give people the information and let them choose what is right for them
- Allow people to evaluate the risks within their own life plan

nously. People complained about headaches, shortness of breath and other so-called non-specific symptoms. These complaints could not be connected to living on the polluted soil. Most pollution was found at depths providing very little opportunity for direct contact or exposure to pollutants. For the earlier mentioned reasons, many people did not and still do not believe this. The pollution put a stigma on the area and led to deterioration of the neighbourhood. Rent and tax revenues had decreased or had not kept pace with normal yearly increases. People did not take proper care of their houses. Others left and temporary residents (students) returned. Abandoned houses were used by homeless people and by drug addicts. At some point the pressure to do something became a train that could not be stopped. A clean-up was maybe more necessary to remove the stigma from the neighbourhood than the polluted soil. An extensive clean up was eventually performed, which added to the view that the pollution posed serious health risks, because "who would be so crazy to pay 100 million Euro to clean a contaminated site with no health risks?".

One clear lesson from Kralingen is that denial does not work. Different parties need to be explicit, open and honest about their own perceptions.

Risk communication is not the transmission of outcomes of risk assessments calculated by experts in order to cause the perceptions of threatened people to be in line with the 'objective', 'real' risk levels. Risk communication is taking the fears of people seriously, to interact and to be willing in some cases to take measures that are not necessary from a technical perspective. This always involves being open,



honest and prepared to go the extra mile. Good risk communication may sometimes, but does not have to imply expensive clean-ups like that in Kralingen. It does always imply giving people information at an early stage (possibly before buying or renting a house) so that they can use to choose freely to live on a contaminated site. People should be given full information they can evaluate the risks themselves and choose what is right for them. For some sites it can be useful to have a monitoring programme in place that involves the local community allowing them to be part of the solution.

To enable the clean up in Kralingen, 110 houses were demolished and about 2500 people had to leave their homes, either temporarily or permanently. The clean up lasted 6 years and caused significant disruption.

tion. Having learned about these consequences, residents started to express their doubts about the feasibility and desirability of the clean up. Many of these were elderly people who had lived a large part of or even their whole lives in the neighbourhood that they loved and did not want to leave. The social impact of their removal was enormous and had large health consequences. Nevertheless, after six years of misery, mud and annoyance, Kralingen celebrated the end of clean-up activities in 2000. New houses were built, people returned, rents and taxes increased to contemporary levels and daily life has been resumed on what is now one of the cleanest soils in Rotterdam. ■

Fred Woudenberg,
GGD, Rotterdam, the Netherlands

■ Interview

Lessons learned in communication with citizens around a multi industrial site

For many years the company Sollac Dunkerque (now called Arcelor) encountered problems with its neighbours because of atmospheric emissions, including sulphur dioxide, dust and graphite particles; and also because of noise from the site.

The level of dissatisfaction in the neighbourhood had increased over the years, despite a decrease in dust emissions (reduction of 50% between 1989 and 1999). All the same, residents have had the impression that Sollac had not made any effort and that the level of pollution

- *Technical measures alone are not enough to ease peoples worries*
- *Start a communication campaign right from the beginning*
- *'Laymen' often come up with very practical solutions: take their suggestions seriously and use them if feasible*
- *Keep the public informed and involved*

had remained the same.

Sollac had planned large investments to further combat the emissions and was certified to ISO 14000. In 1999, the company decided to start up a communications strategy for its nearest neighbours, some only 10 meters away. Two other companies, also based on the Sollac site (GIS and Europipe) joined this exercise as their operations contributed to the complaints.

Two voluntary working groups were set up with residents. One group dealt with noise, the other with dust. Each working group set its own agenda and has two meetings a year and a general meeting open to all inhabitants of Fort Mardyck, the closest community. Each year a written emissions inventory is made and distributed in the whole village, as well as to the local government, the DRIRE (regional authorities for industry and the environment) and the vice-prefecture.

The atmosphere has been a little tense since the working groups started. However, since residents were given access to the emissions information and were given the opportunity to make suggestions and make visits to investigate the origin of noise and dust, the relationship improved considerably. Any solutions they suggest are investigated or tested.

Investments planned at the plant include: sulphur dioxide and diffuse dust abatement. At the request of the working group, this second investment will be replaced by an investment for abating the emission of graphite particles. At the same time various adaptations have been made to counter noise, based on suggestions from the residents.

In 2001, an opinion study for Sollac showed a considerable improvement in its image among the population of Dunkerque and its environs. Today Sollac continues to meet with the working groups. The 'communication operation' has been transformed into an educational operation and a deeper level of consultation. Around 30 people, take part in meetings and visits on a regular basis. They have been remarkably faithful to the initiative since it started. ■

Myriam Duchène,
Alteris France

Emotions and Control



- Communication is not just a technical issue; it encompasses emotions
- Merely providing scientific data and ignoring the emotional aspects, will generally outrage the public
- Listen to concerns and respond appropriately
- Ensure the well-being of those affected: If appropriate have supporting programs in place
- Accept that there are not always immediate answers or clear cut solutions; be flexible

- *Having no choice or no control over a situation can lead to fear and anger*
- *Don't patronise*
- *Give people the opportunity to take part in the solution to a contamination problem*



Control over the situation

Without necessarily being aware of the fact, technical people working on contamination issues have many problem scenarios and solutions in their minds. They know what they have to do when a problem arises and they know that they can make a choice at that moment. They are in control. In contrast, the community involved has no control at all and can feel threatened. Many expert-messages have the format of 'don't worry, we'll take care'. These messages will have the opposite effect, because they are underlining the fact that the community has no control over the situation (outrage factors). It is essential to give the community the choice or feeling that it takes part in the solution to a contamination problem. For example, instead of saying "we are doing A, B, and C", first ask what the community wants, then say "In order to satisfy your points X and Y, we are doing A and B. In addition to this we are doing C because we also wish to ensure..."

Communication in a crisis situation

As a general rule, concerning former gas plants sites, Gaz de France used to communicate broadly to professionals but does not seek to communicate on a case-by-case basis to the large public. However under certain circumstances it is very important to conduct highly controlled communication campaigns. This is the case on pollution control sites, where at the very least we need to communicate with on-site operatives, and possibly with residents if the site is likely to cause inconvenience (odours for example) and more rarely with various other partners, and possibly even with the press. This is certainly the case when the press takes an interest in a site for one reason or another, particularly when there are communities impacted or the company's image may be in jeopardy. To illustrate communication in a crisis situation, we present feedback from a real case, the former Lodève gas plant in Hérault.

The Lodève case is atypical, as it involved arsenic. Arsenic is foreign to the production of manufactured gas, which has never used or produced arsenic or its compounds. Arsenic was used for the production of pesticide products from 1909 to 1952, by a factory in Hérault. After the factory was closed down the arsenic products were warehoused in a mill near Lodève.

In 2001, the current owner of the mill found traces of arsenic on his

property (several rusty barrels and clear traces of arsenic). The case was then picked up by a local newspaper, the "Hérault du Jour", as well as by environmental movements like "Robin des Bois" and the Greens. Moreover, a local group entitled "Collectif Arsenic" has been constituted to bring the matter to light. At last, Julien Courbet featured the story in his television programme "Sans aucun doute" on the biggest TV channel TF1.

Following this discovery, the rumour about arsenic-based products stored at various sites began to spread. The former Lodève gas plant (Hérault), owned by Gaz de France, was amongst these sites.

From then on, under pressure from local journalists and environmental movements, Gaz de France was dragged into the general issue of arsenic in the Lodève region, which peaked when remains of barrels containing arsenic waste were indeed discovered on our site.

Various subjects unrelated to the arsenic problem compounded the issue;

- the presence of a housing estate for Harkis² close to the former gas plant site; the inhabitants were questioning risks to their health, and
- the local government' desire to address the former gas plant site as

² Arab loyalists who sided with the French in the Algerian struggle for independence

- *Doing things above and beyond what is legally required enhances the company's reputation*
- *Involve the company's senior management in the communication*

part of an overall development plan for the area once it was fully cleaned up environmentally.

Many different interests were at stake, especially political ones, as well as financial and image interests. It should be noted that "Robin des bois" tried during a seminar at the very start of the case to establish a direct link between arsenic and the former gas plants. Although untrue, their assertion would have been difficult to refute once the general public had taken notice of it.

In May 2001, under pressure from rumours fuelled by the local press and environmental movements, the Hérault DRIRE³ asked us to conduct investigations on our site to look for the possible presence of arsenic waste. This led to the discovery on 27th June 2001 of remains of barrels containing a whitish paste in the buried substructures of two old gasholders. As the press was following this story and the sub-prefect was managing the case in all openness, this information immediately went public.

³ French regional authority for industry, research and the environment acting as regulator

From then on and up until August 2001, extensive coverage by the local press increased media pressure on Gaz de France, generating a real risk for the company in terms of image.

During that period, Gaz de France decided to take the following steps:

- Have the arsenic waste evacuated at their own cost to a suitable centre
- Conduct a high-profile public communication campaign on the case, highlighting the following points: Gaz de France is not responsible for the problem but it has nonetheless been scrupulous in ridding its site of any arsenic waste discovered.
- Lodge a complaint (on 3/8/01) against person or persons unknown for illegal dumping of arsenic waste on its site;

The task of extracting and evacuating arsenic waste was undertaken very rapidly, starting on 20/08/01 and ending on 18/01/02. This initiative enabled Gaz de France to preserve its image and even to acquire a very positive image in this case, especially with the local authorities, the local media covering the story, the residents around the former gas plant and the Green party.

Gaz de France found itself in the position of culprit in the eyes of numerous external parties. Its image was in jeopardy. The company's managers were informed and decided to actively communicate the matter. This is a very unusual step for management of former gas plants.

The main features of the communication campaign entailed a number of actions as follows:

- As soon as the waste was discovered on our site and received extensive publicity in the media, a Communication Team was set up with people from the Montpellier-Hérault Centre, DELCOM⁴ and the real estates assets management department. The nature and content of the communication campaign were jointly drawn up by the members of this Communication Team. Only people from the Montpellier-Hérault Centre were communication spokespersons (the Centre's senior management, communication officer and territorial delegate.) Special care was taken to check that key people were constantly present and to ensure a smooth handover between the various people involved in the case over the summer vacation period.
- The company's senior management was directly involved in the communication.
- Internal documents for external communication were drawn up by the Communication Team, such as a specific Position Paper and a questions-answers document, updated before each meeting with

- *Do not let the media take control of the situation
Deal with it yourself*
- *Ensure that key people responsible for communication
are always available*
- *Ensure a smooth hand-over between various
people involved*

the media.

- Gaz de France participated actively in public meetings organized by the sub-prefect.
- External communication documents were drawn up by the Communication Team and circulated, including a press release, a letter to residents and a letter to the DRIRE dated 27/7/01, potentially open to publication and thus tantamount to a communication document.
- Gaz de France organized visits to its worksite, thereby notifying the authorities, elected officials, the "Collectif Arsenic" Group and, of course, the press.

Furthermore a complaint against person or persons unknown was lodged for illegal dumping of arsenic waste on our site. In Gaz de France's strategy, this action aimed essentially to protect its interests regarding the legal liability and the public image. Indeed, it subsequently helped to prove that the company could not be held responsible in the case and that it wanted the courts to find the culprits. The media widely reported the fact that Gaz de France had lodged a complaint. In addition, other players also lodged complaints (the owner of the factory where the arsenic had been used, the Greens, the "Collectif Arsenic" Group), thus adopting a position as victims or representatives of alleged victims. Finally, as a result of all this, the attempt by "Robin des

⁴ DELCOM= Delegation of Gaz de France in charge of communications and public relations

bois" to create a link between arsenic and the former gas plants was countered.

The headlines of two newspaper articles show best how Gaz de France's image improved, thanks to our plan of actions and communication campaign. The articles were published by the "Hérault du Jour", the newspaper most involved in covering the "arsenic in the Lodève region" story. The first one dates from when we were first implicated in the case and the other was published upon completion of the works. ■

**Moulin et usine à gaz à l'arsenic :
la polémique ne désenfile pas (Hérault 6/7/01)
Or : Arsenic at the mill and the gas factory :
the verbal attack is not diminishing**

**Les travaux de dépollution de l'usine à gaz
sont bien engagés (Hérault 1/9/01)
Or : The remediation work at the gas factory is well on its way**

Jacqueline Allain
Head of the Real Estates Assets Management
Department of Gaz de France



Planning and timing



- Planning and timing of information release is important
Make sure stakeholders get the information first hand and not from an external party or the media
- The alarm caused by early release will be less than the alarm caused by holding onto information
- Communication should be regular and consistent:
Have a structured communication strategy in place
- Plan information meetings carefully and well in advance
- Start an open communication as early as possible-
Preferably build on existing relationships

- *Many projects benefit from trained journalists being involved*
- *Plan the timing of releasing information carefully*



Communication requires thorough preparation

Releasing information as early as possible, before people start to ask for it, is generally a good strategy. It is part of a proactive attitude and helps build trust and understanding. Doing things above and beyond what is expected is usually highly appreciated by the stakeholders. In some cases, however, information may leak to the press before the stakeholders are informed. This can be difficult to manage.

Of course there may always be other events happening and receiving media coverage that are beyond the company's control and that may have an influence on the release and impact of the communication message. It is considered important to build relationships with the press by providing information. In this way there are few secrets to hit the headlines. Many projects benefit from trained journalists being involved.

Most communication activities require thorough preparation. This holds especially true for public meetings. The logistics, meeting agenda and objectives need to be planned carefully and presentation material, including handouts, needs to be checked to see that the language is kept simple and understandable and addresses the issues people are worried about.

Site redevelopment in Sweden-Management of Asbestos

It is our business to acquire old industrial sites and develop them into attractive, high quality residential areas, according to Christer Egelstig of JM. Our company is constantly searching for potential sites to develop in prominent locations and recently found one close to the Swedish-Danish border. The site is in an interesting, expanding location, adjacent to an attractive waterfront (complete with sailing boats and yachts) and one of the best bathing/ recreational shores in Southern Sweden. In such an idyllic location the potential sales prices for residential properties are high and development an attractive proposition.



The site was originally an Eternite factory that manufactured asbestos based building products for many years. Part of the site was used as a landfill for waste materials from the factory. The factory was closed down a couple of years ago but the asbestos remained! Pieces of Eternite were frequently found in the topsoil and there was also free asbestos in sludge material found at the site. Local residents were familiar with the site use and voiced no concern of the residual asbestos material, even though some 20-30 factory employees had died over the years from asbestor related cancer.

When we acquired the site we first made an investigation plan with a sound theoretical background. We investigated the asbestos situation in the soil, on the seashore and in the air. As there were no guidelines and very limited expertise on handling asbestos contaminated soil in Sweden, we used - in addition to the best Swedish experts available on asbestos risk - 'asbestos expertise' from the Netherlands. We appointed a Dutch consultant, Tauw (who had useful practical experience of working on asbestos contaminated sites in the Netherlands) to perform investigations and give advice to our local contractors (e.g. how wet the soil should be to minimise risks when handling asbestos).

Based on the results of the technical investigations a remediation plan and accompanying urban development plan was made. In parallel with these activities the environmental agency was involved and provided input to the development of the plans and approved them.

We then had to decide what to do next. Although the local community had appeared relatively unconcerned about the asbestos contamination, we anticipated that there might be an adverse reaction if we simply started the clean up work without explaining what we were doing. We therefore decided to present our findings and explain our proposals before starting any work.

To assist us with this we hired a media consultant, who advised us on a strategy to present and disseminate the information. The presentations were reviewed by the media consultant to ensure that they were clear and understandable. We chose to inform the community through the technical consultant as they were independent and by inference unbiased.

After significant thought on the subject, we decided to hold three meetings, all on the same day to ensure that all parties received the same information at the same time. It was important to us that everyone got the information directly from us and not from the television or newspapers. The media should also have a possibility to prepare their messages by more questions, research or interviews before the deadlines

for the local evening TV and morning newspapers. Likewise people from the community should be prepared for questions from the media or the public.

- Explain what you are going to do before starting the work
- Make sure that all concerned parties receive the same information on the same day
- Have a qualified media consultant on the team to check communication messages and give other strategic advice

The first meeting was held in the morning with the local administration. This meeting went well. After lunch we met with the press, who were keen to find an alarming eye catching headline, but appeared (sometimes reluctantly) to accept the benefits of our proposals. And finally we held a public meeting which again was well attended and generally went quite well. After the public meeting the press asked local people questions like: 'Don't you think it's terrible what's happening?' to which they replied: 'No, we are glad that someone is doing this work'. We were obviously very happy with their response!



The only complaint we got from the public was about dust coming from the asbestos at surface, so we promised to do something about this immediately and arranged for action to address this straightaway.

The meetings proved to be very important, both to get information across to the public and to gain public support. The key to the success of the whole project was to employ experienced consultants in the first instance and then to have a qualified media consultant on the team to ensure that our findings and plans were effectively communicated. The timing of information release was critical. Had the meetings gone badly the whole project could easily have been jeopardised. And the advice we got out of this helped reduce misunderstanding which might have escalated public concerns unnecessarily.

The photograph shows a contractor in the protective clothing required under Swedish labour protection laws. This type of protection is legally required in Sweden if the material being handled contains more than 10% asbestos. Can you imagine the reaction of the local community and the press had we not held public meetings to advise them what we were going to do?

The photograph did of course appear in the newspapers, but with the positive comment "The cleaning has started". And the kids on the shore just made jokes about all the protection clothes the man needed, when they had heard that there was no risk for them. ■



■ Interview

Remediation of a Former Oil Refinery- Communicating a risk based approach

After 40 years of operation, a 130 hectares ENI former oil refinery, located near Milan in Italy, had to be reclaimed. Company plans were to remediate the entire site by 2006 using commercially mature and field tested in situ technologies for soil and groundwater. The remedial action plan, prepared by the Environmental Division of Foster Wheeler Italia, had already been agreed with the Public Authorities.

Independently the regional authorities were looking for a venue for the new Milan Fair (a prestigious project). The site was chosen because of the strategic position and high real estate value of the area by the Lombardy Regional Committee, the nearby town Municipalities and main exposition organizations as the future area for the construction of the new Milan Fair. This was announced just at the onset of the reclamation activities.

This meant a change of plans for ENI as a faster remedial operation was required and they had to answer to regional authorities who would otherwise have little interest in the site. A difficult though challenging situation. In order to meet this important challenge ENI was requested to revise and accelerate the initial remedial action plan to meet the

new Fair construction schedule.

To solve this management took a step back from the existing plans to review the modified project aims and how best to achieve them. It was recognised that swift action was needed and that regulators, the local government and the site owner had to work together if the project was to deliver a clean site three years faster than planned.





- *Be flexible and prepared to deal with changing circumstances*
- *Work with people and not against them*
- *Collaboration between technical groups and authorities can speed up decision making*
- *Say what you do and do what you say*
- *A risk based approach is a good basis for communication but effort is needed to help people understand the principles*

A significant acceleration of the reclamation process was conceived and designed by Foster Wheeler by means of a comprehensive risk assessment procedure, in accordance with the RBCA ASTM Standard Method. The risk assessment was performed based on a detailed environmental characterization of the site and the construction project and lay-out of the new Fair.

A technical working group, coordinated by the Lombardy Regional authorities, was formed and installed at the start of the project. Its main task was to analyse and solve all the technical, procedural, administrative and legislative problems associated with the reclamation management. This significantly reduced authorisation time. All the administrative and control Agencies involved, together with ENI and Foster Wheeler, attended the working group for the duration of the project.

In addition to several in-situ remediation systems designed and implemented at the site (i.e. Soil Vapor Extraction, Bioventing, Multi-Phase

Extraction, Bio-sparging, Pump and Treat), soil reclamation via thermal desorption technology and drainage trenches was necessary to speed up the whole reclamation process. The remediation was driven by the design of the new Fair.

All interested Agencies, who were involved from the beginning of the risk assessment procedure, participated to define risk-based remediation targets, protective for human health and the environment. The risk assessment procedure was also successfully used to allow a safe overlapping of some phases of the remediation project with the foundation construction of the new Fair.

Problems pertinent to smell and noise brought forth by citizens that live around the relevant area, have been solved with the support of the technical working group. It was decided to form a subgroup of neighbours and to work together to find a workable solution for all. Fortunately a rigorous sampling programme for ambient air was in

place and once the people understood that the smells were not harmful (as shown by the resulting data) they were more ready to accept this temporary situation. The potentially difficult situation was eased by listening to what the locals had to say, involving them in the solution and providing information as soon as it was available. The access to data, jointly with periodic public visits to the remediation and plant areas, contributed to positively solve the problem with the local population. It certainly helped that remediation was completed three years earlier than planned.

Technically robust clean-up goals were achieved in June 2003 to the satisfaction of the general public and authorities. The site could be redeveloped and reused without delay. A "post-operam" monitoring program has been set up for the site up to the year 2008 in order to verify compliance with remediation goals.

This case study represents a successful example of the importance of Risk Assessment, Risk Management and Communication to enable a sustainable redevelopment of a contaminated land in agreement with the Public Authorities. ■

Mr. Alvaro Bollati,
ENI S.p.A, Milan, Italy



Openness and transparency



- Provide open and honest communication; Listen to peoples concerns and encourage feedback
- Openness creates trust and acceptance
- Unscheduled deviations from a remediation plan need to be explained ahead of time and documented
- Open communication prevents delays caused by opposition and legal procedures
- An open communication creates a positive working atmosphere, results in less complaints and in the end the extra costs for the communication process result in a better net project result

- *Openness creates trust and acceptance*



A regulators view of communication and contaminated land management

In the early 90 's we were confronted with a case of regional dioxin contamination in soil in Southern Germany. It was caused by many years of dioxin emissions from a company that recycled copper wire for re-use. The concentrations in the soil were so high that restrictions were placed on soil use (e.g. no food production). In a very short time span many decisions had to be taken to resolve the situation.

As public authorities we had to inform the public of the situation and the risks involved. We also needed their support for the remediation programme, including the installment of a controlled landfill for dioxin deposition. In the beginning there was some controversy amongst the different local and regional authorities involved about the level of information to be given to the public and press. The authorities were generally not used to being open to the public about such an issue or to involve them in our decision-making process. We soon managed to resolve this controversy . We started and coordinated an open communication process with the public and the media by organising public meetings, issuing press reports, etc. Thanks to the fruitful cooperation of many organisations we managed to find a satisfactory solution for this complex problem.

In the end our openness was rewarded by a great acceptance and trust of the local people in our objectivity and capacity to deal with the situation in an effective manner.

From: Dioxinfall Crailsheim-Maulach, P. Schmelas, ISBN-Nr.3-9801639-2-X

Open communication crucial for a successful operation

After acquiring the 'Tomado' site in Zwijndrecht a few years ago we soon realised that communication was the only key to a successful project, explains Marcel Kolle of Dura Vermeer.

The site had been contaminated with chlorinated hydrocarbons by a former metal processing company. After dismantling and a small scale clean-up operation in the 80's, the site had been developed into a residential area. Less than ten years later it appeared that the soil and groundwater were still contaminated. This resulted in many years of difficult negotiations between the local authorities and the residents. It was concluded that further remediation was necessary and 29 owners had to leave and sell their homes to the authorities.

At that point we signed a contract with the authorities to buy the entire site and took over the liabilities along with the responsibility to clean-up the site and renew the properties. After the remediation operation the former owners would have the first right to buy their houses back. The remedial operation we had planned involved removal of contaminated soil upto a depth of 4 meters (also underneath the homes) and a traditional groundwater remediation. At places where the contamination



under the properties was not accessible, we used a more innovative Six-Phase Heating™ technique to remove the contamination.

As we realised that open communication would be crucial for the success of the project, we hired a professional communication manager. This person was present in the information centre to answer questions from the local residents at set times. Complaints or remarks were taken seriously and dealt with rapidly, providing as many answers as possible. Prior to and during the remediation work information meetings were organised at which the remediation plans were presented, together with progress and results. Those interested could ask questions. This open communication process enabled us to execute the remediation operation in an effective and efficient manner with the sanction of the local community. Complaints about transport movements and noise hindrance were prevented by a combination of technical measures and by tolerance as a result of the goodwill achieved. Throughout the process people were informed of traffic movement and project details. In the end the public interest group complimented us with the extensive information exchange and they appreciated our openness.

We also learned a few important lessons: Although remediation is daily business for us, for a resident it is a unique event. We experienced that open communication prevents delays due to less opposition and legal procedures. And last but not least openness in communication contributes to a positive working atmosphere, fewer complaints and a better net project result.

- Realise that remediation is daily business for some, but for the general public it is generally a unique event
- Open communication prevents delays and usually leads to less opposition and legal procedures and a better net project result

Marcel Kolle,
Dura Vermeer



Main steps of a communication action in Tavaux (France)

For several years Solvay has been investigating soil contamination in Tavaux, in close collaboration with the regional DRIRE (the authority responsible for managing industry and the environment in each region of France).

In 2003, the company carried out a communication initiative to confirm and remind people and organizations in the area that they could not abstract water for drinking purposes from the subsoil around the plant. (It should be noted that the public water supply was not affected in any way.)

The main steps of the communication action were the following. First, Solvay drew up an extensive (internal) "question and answer" document. This was a very important step, since it gave us a shared overall

- Think ahead and plan carefully
- Make sure all company employees involved share the same view
- Try to reach consensus with the authorities on your strategy before informing the general public
- Invest in intensive communication

view of the source of the contamination, the current situation in the soil, and the risk of further problems. This step was carried out by a team of Solvay technical specialists, the plant's environment manager, and public relations managers, coordinated by the plant manager.

The next - and key - step in the communication action involved organizing a meeting bringing together all the organizations involved: representatives from the préfecture for the département where Tavaux is located, the regional DRIRE, local councillors, mayors from the local communities and Solvay representatives. The meeting accorded with the requirements of French legislation regarding local information and consultation on industrial activities. One essential purpose was that the authorities would confirm the restrictions regarding water use.

Publicity action taken was as follows. Both the authorities of the Department and the local industry authorities (DRIRE) issued press releases on the day of the above-mentioned meeting. At the same time, a range of channels was used to inform all the stakeholders and allow two-way communication.

- For people within Solvay, there were both the Solvay intranet

- (manufacturing site section) and hard-copy communication channels.
- To inform external stakeholders, there was:
 - a Solvay press release;
 - a Solvay Internet site;
 - a freephone number manned by Solvay 24 hours a day.

In addition, Solvay devoted considerable efforts to engaging in direct dialogue with all the local stakeholders: local residents, NGOs and associations. These parties were contacted directly, and meetings were held with them after the communication by official bodies.



- To summarize, the key elements for this communication action were:
- Very careful preparation, envisaging all questions and possibilities; (For instance, a press release was ready in case information about restrictions regarding water emerged before the official announcement.)
 - A clear picture of the nature and extent of the soil contamination, and of how the situation would change over time;
 - A clear view, agreed by all concerned, of the nature of the restrictions regarding water, with a clear understanding of why they were needed;
 - Whole-hearted endorsement on the part of the "official" parties involved (the regional DRIRE and the local authorities, councillors and mayors) of the plans for informing and communicating;
 - Intensive direct communication, wherever possible, with all stakeholders in the vicinity of the plant, to complement the official announcements.

This communication action helped build confidence with the neighbouring population about the measures taken by the authorities and Solvay to protect their health. It also helped to distribute precise information about the precautions neighbours should take regarding water use. ■

Pierre Coërs,
Health, Safety & Environment communications, Solvay

Clear Language



- Be as specific as possible
- If you say it has gone, it better had be
If you tell people you are removing to safe levels
ensure they understand that some material remains
- The quality of the communication is the effect that
it evokes
- Meaningful communication is based on
a willingness to understand
- Communication is a 2 way process- listening is essential
- Use understandable language;
Hire communication expertise if necessary for
public and/or media meetings
- Say what you do and do what you say

- *Be as specific
as possible*



Specific communication

Unspecific message: 'remediation will start at 9.00 a.m. People are recommended to close their windows during the first excavation activities.

Specific communication: The excavation work at location X may create dust, so people living in the houses Kings Road 14 to 32 are requested to close their windows from 14.00 hours until Mr Johnson, health and safety representative of the remediation contractor will personally inform them that they should open their windows again. Human health authorities have also requested this as an extra safeguard to prevent any possibility of contaminated dust entering the house. From 9.00 a.m. equipment will arrive on the site. It is not necessary to close your windows until actual excavation starts at 14.00 p.m. Any further questions can be addressed to...

Deviations from remediation plan: expensive lessons learnt

Imagine being the proud owner of a new house in a former 'cleaned up' mining area. Purchasers were told in their sale documents that all 'spots of' contaminated soil had been removed and replaced by clean soil with a 'signal layer'⁵ underneath. The soil quality was guaranteed and digging was without risks up to this signal layer. Then two incidents happen, shortly after another. First, one of your neighbours claims that he has discovered cyanide in his garden. A few months later, some contractors get unwell, when they are digging a few blocks further in creosote contaminated soil. You and your neighbours are very worried about these incidents and demand that the local authorities conduct another soil investigation. The results of this investigation confirm that the soil quality does not meet the quality objectives laid down in the former remediation plan and the 'signal layer' is nowhere to be found.

The anxiety grows and most people are extremely worried about the effects that the contamination has on the health of their family and the value of their property. Trust in the local authorities has completely

gone. Questions are not dealt with appropriately (there is a lot of bilateral, ad-hoc communication) and most residents are getting upset and frustrated because they believe that the authorities are withholding information from them and not taking them seriously. The authorities start to organise public meetings, but the general atmosphere is one of mistrust and hostility.

'At this point TNO-MEP was asked to step in as an independent research institute', according to René Roelofsen of the municipal au-



⁵ A signal layer is intended to alert people not to dig deeper and is installed as a (coloured) separation sheet between the newly applied uncontaminated surface layer and the contaminated subsoil.

- *If you say it has gone it had better be*
- *If you tell people you are removing to safe levels ensure they understand that some material remains*
- *Listen to peoples concerns, take them seriously and factor them into the programme*
- *Use a central information point for communication*



thorities. Their first task was to make an investigation plan in close cooperation with the citizens. Since there was no standard protocol for investigating partially remediated sites, the aim was to reach consensus between the residents and the authorities on what to do. Initially a working group of local residents demanded an enormous monitoring programme. They demanded 13 boreholes in every property upto a depth of 3,5 meter. The costs for this at 140 homes were tremendous and would amount to around 7 million Euros. After a long consultation process, a more cost-efficient investigation programme was adopted that provided the technical assurance needed. As it appeared a number of their properties were indeed heavily contaminated with polyaromatic hydrocarbons, cyanide, lead and benzene in the top soil. It was decided to remediate these specific properties. For most of the properties the concentrations exceeded the remedial targets but, remaining well below intervention values, there was no acute danger. Nevertheless, the home owners were quite worried about all the negative publicity and the value of their properties. In retrospect, if the enti-

re area had been remediated right away according to the specifications mentioned in the contract of sale, a lot of these problems would not have existed and the costs would have been far less.

The most important communication lesson learned is that you have to do what you say and say what you do; if for some reason this changes let people know and write it down. If you promise to send information before a certain date do it and don't leave it lying on your desk too long. If there is a good reason for delay than say what it is. Apart from this it is essential to start an open communication as early as possible and do it in a structured way (e.g. use a central information point). And last but not least, take the concerns of the local residents seriously, factor them into the programme, even if you believe that they are too concerned about things that technically present very low levels of risk.

René Roelofsen,
Municipality of Heerlen

Anja Sinke,
TNO-MEP

Cultural differences



- The most universal quality is diversity
- Take cultural and local differences into account; What is appropriate in one place does not necessarily work in another
- Communication needs to be in line with the audience; Involve local people!
- Where ever possible use local people to help communicate
- One approach world-wide will not work

- *Take cultural differences into account*



Cultural aspects

The way people communicate varies widely between, and even within, cultures. One aspect of communication style is obviously language usage. Across cultures, some words and phrases are used in different ways. For example, even in countries that share the English language, the meaning of "yes" varies from "maybe, I'll consider it" to "definitely so," with many shades in between. Another major aspect of communication style is the degree of importance given to non-verbal communication. Non-verbal communication includes not only facial expressions and gestures; it also involves seating arrangements, personal distance, and sense of time. Some cultures view conflict as a positive thing, while others view it as something to be avoided. The roles individuals play in decision-making also vary widely from culture to culture. For example, in North-Western Europe decisions are frequently delegated. In many Southern European countries, there is a strong value placed on holding decision-making responsibilities oneself. In some cultures, it is not appropriate to be frank about emotions, about the reasons behind a conflict or a misunderstanding, or about personal information. When you are dealing with a case, be mindful that people may differ in what they feel comfortable revealing. Questions that may seem natural to you may seem intrusive to others. The variation among cultures in attitudes is certainly something to consider before you conclude that you have an accurate reading of the views, experiences, and goals of the people with whom you are working.

From: AMPU Guide: www.wgcd.org/action/ampu/crosscult.html

The Blue Lagoon in Bulgaria-Local issues need local input

In 1997 Umicore decided to purchase a copper smelter from the Bulgarian government as part of Bulgaria's transition from state owned properties to private ownership. Contingent to this purchase, Umicore and the Bulgarian government agreed to close a waste pond, containing 'slime residue', referred to as the Blue Lagoon. Closure of the Blue Lagoon was part of a site wide cleanup primarily financed by the World Bank. As part of Umicore's site wide cleanup, approximately 800.000 m³ of contaminated soil and demolition debris was placed in the slimes contained in the Blue Lagoon. A low permeability cover system was constructed over the waste material.

To implement the project successfully a cooperative partnership was formed between Umicore, the Bulgarian Government, the World Bank and MWH as consultant. A communication strategy was developed to

- Local issues need local input
- International issues may require something different
- Multilevel communication helps to address specific needs at different levels
- Communication needs to be fully in line with the audience

achieve all the project objectives while complying with the high standards for health, safety, security and the environment.

Communication took place at different levels:

At the local level, Umicore Med communicated with the local mayors, local contractors and the regional inspectors about the outcome and benefits of the work for the local communities. Dealing with soils frequently creates dust issues, so special emphasis was put on eliminating migration of contaminated dust which might be a nuisance to neighbours.

One of the two nearby towns, Pirdop, is located downwind from the Copper smelter. Migration of dusts, from the old slag dump, the old fayalite tailings ponds and from contaminated soils, used to be a very frequent event before 1997. As a result of the site wide cleanup, and the newly enforced procedure for disposal of fayalite (an iron magnesium silicate), dust contamination has been seriously reduced. The intention to control dust contamination had been properly communicated ahead of the works but it was only after completing the works, that the people from Pirdop acknowledged the positive outcome of the results.

At a national level, Umicore Med communicated with the responsible Ministries (Ministry of Environment and Waters (MOEW), Ministry of Industry, Ministry of Finance), and their dedicated project representatives on a monthly basis. Their main concern was complying with regulations and this had to be balanced with the requirements of the funders and general public. To do this, the National and local project representatives worked together.

The main communication between Umicore Med and the NTEF (National Trust and Ecofund), representing the MOEW, happened nearly on a weekly basis in a very informal manner. Either at the NTEF's office in Sofia or at the Pirdop plant. An agenda was agreed upon upfront and concise minutes were kept. Only those issues, requiring a more in depth analysis and /or decision making process, were kept for the formal meetings with the representatives of the three former mentioned ministries. These ad-hoc meetings were also well planned ahead and minutes were kept.

The project was part of a larger (ERPP), Environmental Remediation Pilot Project, for the World Bank so, twice a year, a World Bank review mission was organised to understand whether the money was being spent wisely. This involved WB local and Southeast-European representatives, the Bulgarian Government, Umicore and Non-Governmental Organizations.

The initiative was in this case taken by the World Bank. The local office



in Sofia organised a review mission, together with different consultation sessions (Bulgarian Government and NGO's). Minutes were kept by the World Bank's representative and consequently distributed to all parties involved.

At a World Bank conference held in Sofia on March 14, 2003, near the end of the ERPP program, Dr. Vania Grigorova from the Ministry of Environment and Waters stated: "The Ministry of Environment regards this project as an excellent example of cooperative effort of all parties. The experience gained provides confidence and a practical model for implementation of further remediation projects"

An independent public consultation about the local benefits of the ERPP was performed during 2002. The results attested to a strong

level of support from the local communities for the achieved results. The remediation of past environmental damages was highly appreciated as well as the supporting programs implemented by Umicore, such as correction of the river banks and repairs in the local schools and hospital. Here again, the initiative came from the World Bank. The project being a pilot project, the WB wanted to include a social impact study, comprising a consultation of the local population before and after the main works. A specialised Bulgarian firm was contracted to do the surveys in the towns of Pirdop and Slatitza. In order to protect the neutrality aspect of the study, the WB decided to fund it itself.



The main lesson learned was that the communication (e.g. the person who does communicate, the message you want to convey, the language in which you communicate, the place of the meeting and the timing of the venue) needs to be fully in line with the audience. It therefore appeared to be a wise communication strategy to involve local people who are familiar with the local issues and culture. In this way the needs of the local community and other stakeholders can be addressed most optimally. ■

Jacques Tack,
Mining and Remediation Manager, Umicore

