Cross Border Market Surveillance
LVD-ADCO
Luminaires 2006

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CONTENTS

SUMMARY

In 2006 LVD AdCo organized its first cross border market surveillance project.

The aims of this project were for the 15 participants to gain experience with:

- The exchange of information on market surveillance;
- The market surveillance practices used by the participants; and
- Practices that assist cross border market surveillance.

This report explains the set-up of the project, including organization and management, and the backgrounds to the design of the project. The options considered to reach the project specification are discussed, in particular the selection of products expected to be non compliant for examination, timetable, mechanisms for information exchange and the selections of the test.

The results obtained on the total of 226 luminaires sampled and investigated by the fifteen participating authorities are discussed. Samples taken were products suspected to be non-conforming, so are not representative of the market in general, and an assessment verified that a large proportion of the samples failing to comply with the standard and LVD. Principle reasons for non-conformity were:

- Construction e.g., insulation, internal wiring, cord anchorage;
- Lack of identification of the person placing the product on the market or of the manufacturer;
- Administrative failings, e.g. lack of CE marking, technical file or Declaration of Conformity.

The cross border action is evaluated with respect to the organization and execution of the project. Obstacles encountered in implementing and executing such cross border market surveillance projects are discussed, e.g. lack of human resources to develop, manage and report such projects, need for financial resources to coordinate and manage the activities, lack of harmonization in the classification of the gravity of non conformities and the need of improved information exchange systems.
A failure of the project was in determining the size of the market, number of economic operators and the value of the market. It is apparent that generally market surveillance authorities do not have access to this information and such objectives should be excluded from future projects.

The organizational model used, in particular the use of a task force to support a main project coordinator and local coordinators in the member states, worked well and is recommended for future cross border projects.

Recommendations are made for:

- Future coordinated European market surveillance on a regular basis;
- To promote small scale cross border cooperation e.g. between 2 – 5 authorities;
- Improving information exchange between the authorities;
- To harmonize the classification of the seriousness of non-conformities.

Due to the significant number of examined luminaires that failed to have available a technical file or Declaration of Conformity it is recommended that a future cross border project be carried out limited to examining availability of these documents.

INTRODUCTION

On the 10th and 11th of March 2005 the European Market Surveillance Programming Conference took place in Brussels. The conference stressed the importance of market surveillance for the proper functioning of the free circulation of goods in the European Union, while maintaining a high level of protection for the citizens of the Union. The results and conclusion of the conference convinced LVD AdCo that cross border market surveillance actions should be given priority and in the March 2005 meeting it was decided that a proposal for a cross border action should be prepared, to be discussed during the autumn meeting. At the same meeting a small number of interested member states expressed interest in cooperating to further develop the plans for a cross border action.

PRELIMINARY CONSIDERATIONS

In defining the project a number of preliminary considerations were taken into account. First, the cross border action should aim to involve as many member states as possible. Because infrastructures and funding possibilities vary between member states, the subject of the project had to be preferably selected in such a way, that cost was minimized and that the technical requirements for the tests were within the possibilities of all potential participants.

This limits the scope of the products to be investigated. A direct consequence of this choice is that it prohibits the selection of products, which are expensive to investigate and acquire, such as tumble dryers and plasma televisions. Preferably the product category selected should involve inexpensive products and inexpensive tests.

A second consideration was that the project should aim at consumer protection. This implies that market surveillance of the project category selected increases conformity with legislation and thus contributes to increased safety. Also, the tests performed on these products should be selected in such a way that they are safety relevant.

Efficient market surveillance does not require that the conformity of the products is checked extensively, i.e. that all the tests prescribed in the standard relevant to the product category involved are performed. Instead it suffices to perform a limited number of tests with direct relevance to the safety of the product.

The first responsibility of the Market surveillance authorities is the protection of their citizens against unsafe products in their own country. This implies that most national MS-authorities pay attention to all products sold on their market, despite the fact that these may have entered the free circulation of goods in one of the other Member States. Measures are generally confined to its own jurisdiction and the European market as a whole hardly benefits directly; in the other member states sales may well continue. Measures on a European scale are then dependent on the reaction of the authorities to RAPEX and LVD article 9 safeguard notifications.

However, from a European perspective market surveillance is most efficient and effective when each national authority checks the importers/manufacturers within their own jurisdiction. Each MS-authority then investigates only those products, which are brought onto the common market from within its own jurisdiction.

For this cross border project it was therefore decided to aim inspections at EU-importers and manufacturers, to increase overall efficiency and effectiveness of the market surveillance action.

FIRST PROPOSALS

During the LVD-AdCo meeting of 14th – 15th of March 2005 it was decided that a cross border market surveillance action was to be organized in 2006. The chair was asked to make a proposal for such an action, to be discussed during the autumn meeting. In turn, the chair asked interested delegations to participate in the design of the actions. Several delegations volunteered for this preparatory group: the UK, Austria, Spain, Luxembourg, Sweden, Norway, Malta, the Netherlands and Poland.

Based on the ideas given in the introduction the chair drafted two concise proposals: one concerning an action on luminaires, the other an action on flat-irons.

LUMINAIRES

Luminaires were chosen for a combination of reasons. Previous experience indicated that useful market surveillance could be done using relatively simple tests. Combined with the fact that luminaires are relatively cheap to purchase, this brings market surveillance of luminaires also within the possibilities of member states with small budgets.

Besides, there are good reasons to check this category of products. In the recent past high levels of non-conformity have been found in several kinds of luminaires in the Netherlands. For example, high percentages non-conformity, up to 40 % of the products investigated were found in an investigation of wall- and ceiling-mounted luminaires in 2001. Shortcomings included both failure to comply with labelling requirements and technical shortcomings.
These findings are substantiated by the statistics of the LVD safeguard clauses and RAPEX notifications, which show that luminaires are the product category most frequently involved (see figure 1). The notifications generally concern technical shortcomings that jeopardize the safety of the luminaires involved, giving rise to electric shock hazard or increased risk of fire. Therefore, market surveillance of luminaires is in line with the aim to improve the safety of the consumer products on the market.

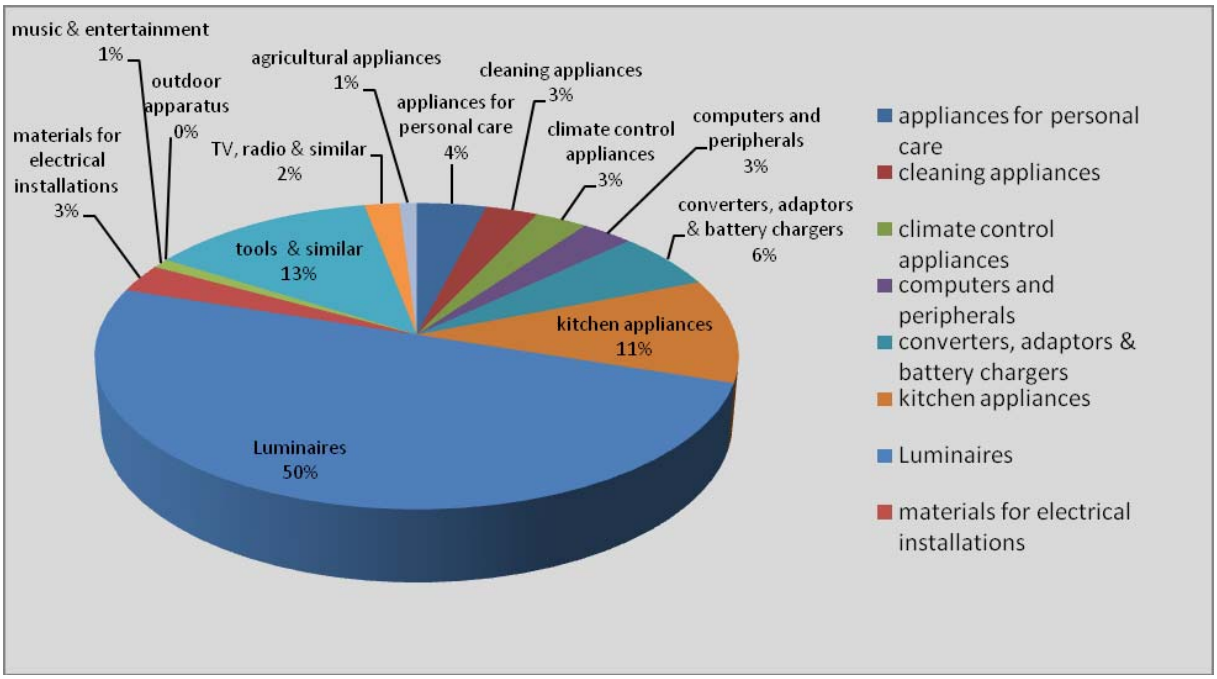

Figure 1: Distribution of safeguard clauses and RAPEX notifications over the product groups.
Courtesy: LVD AdCo, Jan Roed

Characteristic for the market in luminaires is that, apart from a number of bigger players, it involves a multitude of smaller companies. Many of those import luminaires from third countries, but manufacturing in Europe also occurs. Within the context of this project this means that importers or manufacturers are likely to be found in all member states, allowing participation of all the interested market surveillance authorities.

FLAT-IRONS

The reason for drafting a proposal for flat-irons was an incident that had occurred in Greece in 2005, where two people had died from electric shocks caused by a poorly designed flat-iron. The incident urged DG-Sanco to advocate market surveillance activities on flat-irons.

Market surveillance of flat-irons is more difficult and expensive than market surveillance of luminaires, because it requires more complicated testing and the tests involved are rather expensive. The market situation for irons differs considerably from that for luminaires, because in this market a conveniently small number of mostly big European companies is responsible for a large majority of the sales. Though these companies may manufacture outside the EU, design and quality management is at a European level. By far the most of these companies are from Germany, France, Spain, together with a few Dutch and Swedish companies. This distribution of major companies makes flat-irons less attractive as the subject for this first LVD cross border action: the number of member states involved is restricted and their surveillance organizations will be disproportionately burdened.

Non-conformities might well be found when irons from these companies are investigated, but there is little information that could substantiate a safety problem with the majority of these irons. There are few consumer complaints indicating safety deficiencies and the number of notifications and safeguard clauses is relatively small. Accident statistics from the Netherlands do show that irons are involved with some regularity in causing injuries to consumers, but these injuries do not generally involve the electrical safety. Injuries reported include burns and injury from contact with falling irons, but no electric shocks (with the exception of the Greek incident, of course).

CONTINUATION

Both proposals were discussed in a meeting held in Brussels the 20th of June 2005. The interested member states mentioned above participated, as did representatives from DG-Sanco and DG Enterprise. Aim of the meeting was to discuss the suitability of the two project proposals and to select one for further elaboration, in order to submit it as proposal for a cross border action to the autumn LVD-AdCo meeting. At the meeting Austria submitted a third proposal, concerning a joint action on multiple socket outlet extensions cords and Sweden suggested recessed luminaires as a further subject.

Both additional proposals were also to be worked out further and then presented to LVD AdCo. During the autumn meeting LVD AdCo could then make a choice from the proposals.

Taking into account the suggestions and remarks made at the preparatory meeting in Brussels the project plans for the luminaires and flat-iron cross border actions were worked out further by the Netherlands and presented at the LVD-AdCo meeting (see Circa: lvd adco 05-10 doc 10, lvd adco 05-10 doc 9). Both proposals provided for phasing and management of the project, initial market orientation, sampling requirements and a test program consisting of a selection of safety relevant standard requirements selected as described later under the heading “design of test program”.

Also, concise documents on the extension cord proposal and the recessed luminaires were submitted for discussion. LVD AdCo concluded that, if wide participation was to be aimed at, the luminaires project was the project to be developed further in cooperation with the member states. It fulfilled the requirements of simplicity, ease of execution and economy. The project on irons was considered interesting, too, but the expenses of the more complicated tests would preclude wide participation in the next year.

After discussion LVD AdCo therefore decided to select the proposal on luminaires as the subject for the cross border action in 2006 and asked the chairman to take on the organization of the project, who agreed. Because the practical management of the multinational project and its further development were expected to claim considerable manpower, the chairman asked to be supported by a 'task force' of volunteers to assist him in the work involved. Germany, Luxembourg, Malta, Cyprus, Spain, Sweden, the United Kingdom and the Netherlands volunteered.

Fifteen member states indicated that they wanted to participate in the cross border project: Belgium, Cyprus, German, Finland, Greece, Hungary, Iceland, Luxembourg, Malta, Netherlands, Norway, Poland, Slovenia, Spain and Sweden.

The proposal on extension cords was postponed for later discussion in LVD AdCo as a possible candidate for an action in 2007. The reason for postponement was that complications were foreseen, because differences in the standards and rules between the member states for the plugs of the extension cords. Plugs form an integral part of extension cords, but are regulated nationally and fall outside the scope of the LVD. These differences were expected to require a longer preparation time for developing the more complicated test program. Meanwhile the extension cord project is in progress as cross border market surveillance action for 2007 under a partial grant from the Commission.

CROSS BORDER MARKET SURVEILLANCE ACTION LUMINAIRES

Aims and scope of the action

The aims of this cross border project were largely agreed upon during the autumn 2005 LVD-AdCo meeting. They comprised:

- To gain experiences with cross border market surveillance,
- To exchange information on market surveillance practices in the Member States in the area of the LVD,
- To collect information on the differences and similarities between the participating Member States with respect to the effects of differences in their market surveillance practice,
- Identify obstacles that hinder cross border market surveillance,
- To raise the profile of market surveillance in the field of the LVD in the minds of consumer organizations and industry.

Within the context of this specific project on luminaires, the secondary goal is law enforcement in the cross border setting. This implies that sampling was not to be random, but was aimed at sampling products that are suspected of non-compliances.

Organization & Management

PROJECT COORDINATION

Developing and managing the execution of a cross border market surveillance project requires a project coordinator who is allowed sufficient time and resources to develop, control and manage the progress of the project. The project coordinator must develop and finalize the project description, answer questions arising during the execution of the project and should be able to respond to all needs for information and coordination from the member states. He should also be able to provide coordination and support when the progress of the project requires this. Finally the project coordinator is responsible for reporting on the project.

Recruiting a coordinator for such a project presents a bottleneck, because defining, managing and reporting a cross border market surveillance action takes considerable time, which has to be mustered from people already fully occupied in their national jobs. For the luminaires cross border action the Netherlands took on this responsibility during the LVD AdCo meeting, under the condition that it was backed by the “task force” designated at the same meeting.

The task force took on to back up and help the project coordinator in refining the project description and development of the test program, sampling requirements, organization of information exchange, compiling a practical project guide for inspectors and laboratories and a questions and answers sheet. In addition the task force was required to support the project coordinator in the practical coordination required during the execution of the project.

MEMBER STATE PROJECT LEADERS

The central project coordinator communicates with member state project leaders, who take responsibility to manage the progress of the project within the proposed time schedule in his member state. The member state project leader is also responsible for the timely report of the results of the activities in the member state.

COORDINATION WITH THE PROSAFE EMARS PROJECT

While developing the luminaires cross border action Prosafe (the Product Safety Enforcement Forum of Europe) started the E-mars project under a grant from DG-Sanco. EMARS stands for: *enhancing market surveillance through best practice*. EMARS is a large scale project in which many market surveillance authorities in the area of consumer product safety cooperate to establish the best practices in market surveillance employed in Europe. The scope of EMARS is wide and encompasses the practices used for enforcement, for training officers and for risk assessment. It tries to find ways in which the member states can benefit from each other's expertise, by establishing a database that makes available the experience of the participants to each other and by organizing a rapid response forum, which can be contacted when advice is needed. EMARS is also involved in the coordination of cross border actions in the fields of general product safety, in particular with a project concerning the safety of cigarette lighters.
Since EMARS expected to benefit from the experiences gained in European cross border actions, and the luminaires project coordinator believed the project would reciprocally benefit, contacts were established with EMARS. In fact, several of the EMARS participants were represented in the task force, Malta being particularly relevant, as the representative is a member of the EMARS core group.

SCOPE: SPECIFYING WHICH LUMINAIRES

Clear and precise definition of the type of products that is the subject of the action is important to avoid complications during the execution and reporting phases.
Simply listing luminaires as the subject of the action samples is likely to lead to the sampling of a wide variety of luminaires: wall mounted and ceiling mounted luminaires, standing luminaires, luminaires with fluorescent tubes as the light source and luminaires with light bulbs, LED lighting, etc, etc. Such a wide variety of luminaires leads to a multitude of tests from different parts of the standard for the different types of products, complicating project design, execution and reporting. Clearly defining and restricting the scope is desirable, because it avoids these complications and leads to more efficient testing.

Therefore the task force decided to restrict the scope of the present project to portable luminaires (*luminaire, which, in normal use, can be moved from one place to another while connected to the supply*) falling within the scope of EN 60598, part 1, par. 1.2.9: portable luminaires and within the scope of EN 60598-2-4: portable general-purpose luminaires. In practice this encompasses standing luminaires and desk luminaires, including luminaires with halogen lamps in as far as the bulb directly operates on the 230-240 V mains.

Explicitly excluded from the scope of the project for the reasons mentioned were:

- Child appealing luminaires;
- Tubular fluorescent and other discharge lamps;
- Portable luminaires for garden use (EN 60598-2-7) ;
- Luminaires fed with transformers (EN 60598-2-6);
- Hand lamps (EN 60598-2-8);

Luminaires that are intended for wall mounting in a way that allows their easy detachment;

Luminaires for exterior use;

Christmas lighting (EN 60598-2-20);

Rough service luminaires (EN 60598-2-5).

DESIGN OF TEST PROGRAM

Market surveillance is not the same as conformity assessment. Conformity assessment requires checking whether a product fulfils all requirements of the applicable standard. If it does, it is considered to be in conformity with the Directive: it carries the presumption of conformity.

Instead of demonstrating the conformity of a product, market surveillance aims to demonstrate non-conformity of products already on the market, in order to intervene when necessary. That is generally accomplished more efficiently if the resources are spent on the most relevant requirements in the standard and, where known, those requirements most often violated. Because not all requirements in the standard have to be tested, the number of tests per sample can be restricted and testing costs per sample decrease. More samples can then be investigated with the same resources, leading to increased enforcement pressure and greater visibility of the market surveillance authority in the target group.

Where consumer safety is the first priority the aim should be to select requirements and tests that are the most relevant for the safety of the product. It may be true that all requirements in product standard have some significance for the safety of the product, but generally it is possible to make a selection of requirements that covers the most important hazards.
Moreover, from previous experience the requirements that are hardly ever violated may be known. Such tests may also be dropped in favour of tests that have been found to fail frequently.

SELECTION OF REQUIREMENTS TO BE TESTED

In the first proposal for the project the starting point in the selection of requirements to be investigated was the consideration that the tests should be within the possibilities of a wide majority of the member states. For that reason requirements were selected which can be checked by simple and inexpensive tests. That way the threshold for participation was to be kept as low as possible.
Second criterion was that the requirements selected should be safety relevant. From previous experiences from the VWA, and also from the LVD safeguard clauses, common deficiencies identified in luminaires are shortcomings in labeling, cord anchorage and in wiring and insulation. With the exception of some of the labeling requirements, all these items are relevant for the safety of the luminaires. In the selection of tests and investigations for this project, these common shortcomings were therefore (amongst others) addressed.
Discussion of the program in the original proposal with the task force led to several adjustments. Though such discussions have a tendency to widen the scope of action, because many member states want to incorporate their own priorities, the task force largely managed to resist this temptation.

Ultimately the program listed in the project description fulfils the requirements of ease of testing and relevant to safety quite well. The requirements investigated can roughly be divided in two categories: administrative and labelling requirements, and requirements that address the technical safety of the luminaires.

ADMINISTRATIVE REQUIREMENTS AND LABELING.

Most market surveillance authorities for the LVD check the administrative requirements imposed by the LVD routinely. This project makes no exception, despite the fact that they have no immediate bearing on the safety of the luminaires. These checks involve the presence of the CE-marking, the availability of the Declaration of Conformity (DOC) and of the technical files (TCF) upon which this declaration is based.
In addition, the obligatory markings required for luminaires according to Harmonized standard EN 60598-1 (mark of origin, class II symbol, when applicable, makers model number and type reference and rated wattage) and the instructions for the proper and safe use (where applicable) and the language of these instructions were checked. To facilitate uniform evaluation of the administrative requirements, the task force included a section in the guide with instruction on how the conformity with the administrative requirements should be judged (see guide:
http://circa.europa.eu/Members/irc/enterprise/esg/library?l=/surveillance_projects/2006_luminaires&vm=detailed&sb=Title).

TECHNICAL REQUIREMENTS

The technical requirements checked in the action were selected with electrical hazards and fire hazards that may arise from the use of luminaires in mind. Also, mechanical hazards that might give injuries while handling or installing the luminaires are addressed.
For electrical and fire safety the selection includes for example requirements for the construction, insulation, diameter of wiring, earthing and cord anchorage. The requirements that require testing have been chosen to use only relatively standard equipment, which most laboratories posses. The full test program is not described here, but can be found in the project plan:
http://circa.europa.eu/Members/irc/enterprise/esg/library?l=/surveillance_projects/2006_luminaires&vm=detailed&sb=Title

CLASSIFICATION OF SHORTCOMINGS

When non-compliances are detected in a product the market surveillance authority has to take appropriate legal measures and where appropriate other interventions. Appropriate measures meet the precondition that they are proportional and consistent.

Where product safety is the main priority, the severity of the sanctions and interventions should be proportional to the risk associated with the non-compliance. In the area of the LVD non-compliances determined are generally failures to comply with requirements in the applicable standard. To determine what measure is appropriate and proportional for a specific shortcoming, the risk associated with this shortcoming has to be analyzed. Result of the risk analysis is a classification of the severity of the risk, which in turn is used to determine the severity of the sanction or intervention.

At present only the Scandinavian countries have agreed on a shared system for the classification of the most common LVD shortcomings. Some of the other member states define their own classification in standard operating procedures, directly linking them to interventions that must be undertaken. For other member states no information about their classification systems is available.

Because for some of the member states the classification of the severity of the shortcomings is fixed in their standard operating procedures, this project decided not to prescribe the member states how to judge the shortcomings found during the action.

INFORMATION EXCHANGE

For the project an information exchange mechanism was adopted that allowed all participants to be aware of samples taken by the other participants. The mechanism employs Circa, where a directory dedicated to the

project was opened in the closed area for the LVD AdCo group (http://forum.europa.eu.int/Members/irc/enterprise/esg/library?l=/surveillance_projects&vm=detailed&sb=Title.). Access to this area is restricted to the market surveillance authorities in the LVD field and civil servants from DG-enterprise and DG-Sanco.

Participants in the actions were requested to submit information on their samples immediately after sampling and checking the administrative requirements. To facilitate entering and sending in the data a spreadsheet was made available. The excel sheet was specially developed by one of the task force members to allow easy entry of the data for the participants, while at the same time compelling data entry in a uniform way. When data were entered and submitted to circa the project coordinator summarized the information in an overview page.

Participants were also asked to submit electronic photographs of the products sampled and electronic scans of the declaration of conformity for the product. For easy identification of these documents files were named according to a prescribed coding system, identifying the participating member state, the registration code of the sample and the nature of the document (see also the guide).

TIME SCHEDULE

In the original project proposal the action was subdivided in three phases, during which specific activities should be carried out. Roughly the first phases concerned a market study, at the end of which samples should be available. The second phase then consisted of a time frame during which the samples were to be tested and the last phase allowed time for analysing the results and reporting. Idea behind this phasing was that it allowed the exchange of information on the samples taken, thus avoiding double testing of the same luminaire by different participants.

Already during the discussions in LVD AdCo it became clear that adherence to a strict time schedule for all participants was not really possible. This was due in part to the fact that the time schedule of project interfered with already existing plans and obligations of the participants. Another important reason was that for some of the participants the time available between inspection and sampling and starting legal procedures is limited, either legally or because of internal operating procedures.

Therefore, it was decided to let the participants free in planning their work for the project, provided they submitted results at the end of December 2006.

SAMPLING

In discussions within the task force the initial intention to take random samples in order to obtain a dependable picture of the degree of conformity in the luminaire market met with scepticism. The main concern was that this object could not be achieved within the scope of the action. The luminaire market is fragmented and a dependable estimate of the degree of non-compliance would require many more samples than feasible in this first cross border action. Random selection of importers/manufacturers in relation to market shares would be needed, with subsequently a random selection of the types of luminaires they offer, again in proportion with the relative sales. Besides the question arose which part of the market to assess: low budget only, mainstream, up-market or the whole luminaire market.

A practical objection was also that it would be difficult to obtain randomly selected samples from law enforcement officers primarily trained to find products that do not comply. Finally, some members of the task force thought the idea that a lot of effort and resources would be spend to test samples that were likely to comply was unattractive; market surveillance is about taking non-compliant products of the market, not about checking products that are perfectly alright.

The complications arising from trying to sample randomly in order to measure the degree of conformity in the market were felt to be too great. Therefore it was decided to aim the action primarily at law enforcement.

Field inspectors responsible for sampling were asked to sample luminaires that in their expert opinion were likely to fail the requirements

In line with the philosophy that cross border actions are most efficient when checks are done at importers and manufacturers, the participants in the action were asked to sample there. Note that for some of the participants this meant a divergence of their usual working method of sampling at retailers and then tracing back to the importer.

(See for details on sampling also the project plan and the guide for the luminaire action).

DOCUMENTS

The task force produced a number of documents for the luminaire action. The most important are listed below:

- Project Plan
  final specification of the project.
- Guide
  guide for field inspectors, laboratory and management specifying practical matters not found in the project plan.
- Assessment report
  template for entering test results
- Results Form
  Excel sheet for easy entry of data in the CIRCA information exchange system

Other documents that were made available to the participants included the Scandinavian *code for common deficiencies* and a question and answers document addressing the most common questions of the participants.

All these documents can be found at the Circa site:
http://circa.europa.eu/Members/irc/enterprise/esg/library?l=/surveillance_projects/2006_luminaires&vm=detailed&sb=Title

RESULTS

In response to the questionnaire, 15 member states agreed to participate in this project. Three of the participating member states indicated that they were (or might be) willing to perform the technical investigations for two potential participants, which had indicated that they could only participate if such support was available. Five of the 15 participants belonged to the so-called "new member states" and two were EFTA partners.
The project plan left it to the participants to decide the number of samples they would investigate within the context of the action. The questionnaire showed that the participants planned to investigate a total of between 132 to 210 luminaires.

Though the participants were urged to submit information on samples taken at the earliest possible moment (to preclude duplication of the investigations on a single product in different member states) results and data on the samples were more commonly submitted simultaneously, after all results had become available.

The project plan set the final date for submitting the results at the 31st of December 2006. At that date only 6 of the participants had submitted all their results. During January 2007 and in the beginning of February 2007 most of the missing results of the other participants came in. The last contribution was made available at the end of March 2007. Admittedly this was the biggest contribution to the project, when measured in the number of samples investigated.
At that time, 14 of the 15 original participants had filed their information; one of the original participants failed to enter data. One other member state, however, did enter data, even though not belonging to the original group of participants.

In all, the LVD market surveillance authorities from 15 member states participated and contributed results, making this action the biggest cross border action in the LVD field up to that date.

THE SAMPLES

The samples reported comprised a total of 226 luminaires: 1 clip-mounted luminaire, 23 floor standing luminaires and 202 table luminaires. Note, that the ratio standing luminaires/ table luminaires sampled does not seem to reflect the actual market situation, where this proportion is likely to be less lopsided.

For 13 samples no legal entity or person responsible for introduction in the EU was traced. A manufacturer was in 93 of the cases responsible for placing the product on the EU Market. For the remaining 120 luminaires 94 different EU importers were responsible for the introduction on the European market.

For 65 luminaires no country of origin was reported. From the remaining samples 87 (38 %) came from the European union, especially from Germany, Poland and Spain. The rest of the luminaires originated from third countries (74, 33 %), the main contributor being China (almost 23 % of the samples).

For 65 of the sampled luminaires no manufacturer was listed in the data obtained from the participants. The remaining161 luminaires were manufacturer by a total of 108 different manufacturers. Note, that some companies, where multiple samples were taken, were importer for some of these products, while they were the manufacturer for other luminaires. Also some companies worked with "private labels", taking the responsibility for introducing the luminaires on the EU market.

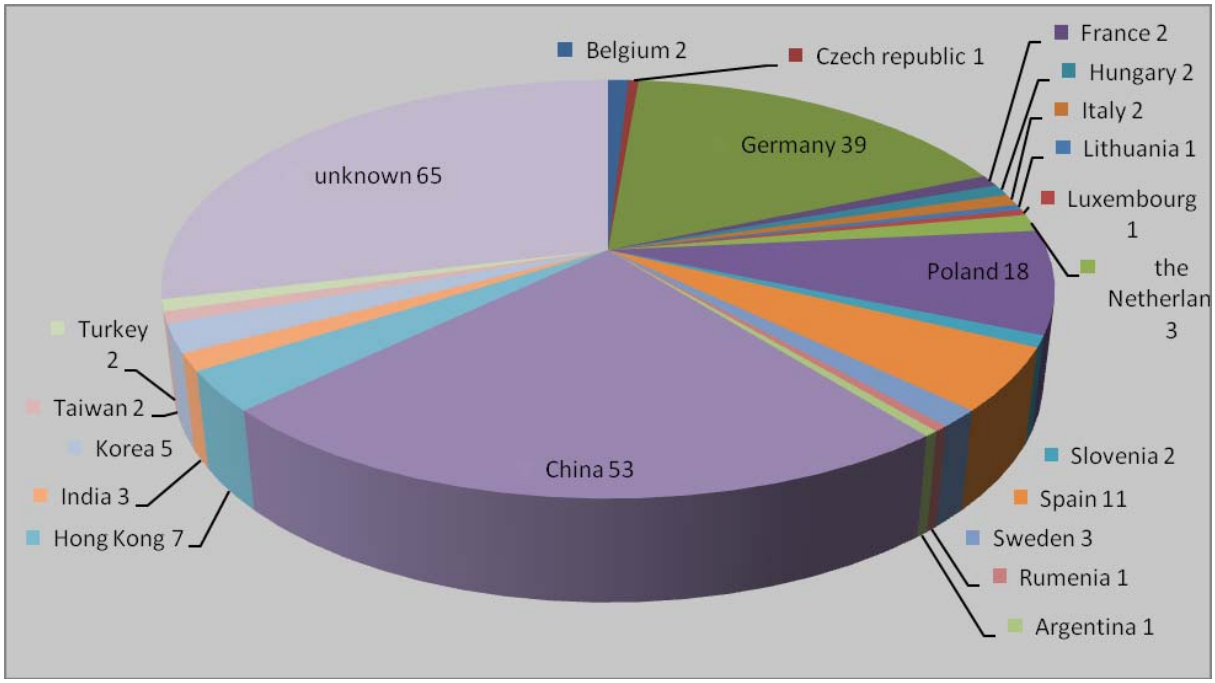

Figure 2 country of origin of the samples

Despite the fact that the information exchange mechanism, which aimed to prevent repeated sampling of the same luminaires, was not used very regularly, only two samples taken in the action were identical. Peculiarly, these samples were taken in the same member state and would not have been avoided by better information exchange between the participants.

The project plan provided for the participants to submit data on the luminaire market in their jurisdictions, in particular about the market shares of the companies where samples were taken. Having such date would allow an estimate of the impact of the action on the market, eventually to be used for designing a follow-up action. During the preparations of the project several participants were already skeptical with respect to the possibility to obtain sales and market share information. Indeed only few participants were able to contribute this information, often in the form of rough estimates. Therefore it is not possible to assess the impact on which share of the luminaire market was affected by the action.

RESULTS ADMINISTRATIVE REQUIREMENTS & LABELING

Of the 226 luminaires sampled 26 did not carry the mandatory CE-marking. The declaration of conformity was not available for 127 of the samples taken, while in 34 cases the document was available but did not meet the requirements. The Technical Construction File, obligatory for drawing up the declaration of conformity, was available for 55 of the luminaires, but 25 of these technical files were judged not to be correct.
Summarizing it may be concluded that for the majority of luminaires the administrative requirements of the LVD are not fully satisfied.

Besides the administrative requirements with respect to the conformity assessment procedure, the LVD also requires that brand names and or trade marks are clearly marked on the product, as well as the information that is needed for a safe and appropriate use (LVD Annex I, under 1 a and b). Here also, many luminaires do not comply. The brand name missed on 35 luminaires and 22 luminaires did carry only a type-indication, not a brand name. The lack of information about the brand and type of a luminaire complicates tracing the importer

or manufacturer. Based on the data available only five importers/manufacturers could not be traced. Many (106) luminaires also failed to carry barcodes.

RESULTS TECHNICAL REQUIREMENTS

Conformity with the safety requirements in the LVD determines the safety of a product more directly than complying with the administrative requirements. The 226 luminaires were tested against a selection of the requirements given in EN 60598, as described in the previous sections. Here again, many of the luminaires tested did not fulfil the standard requirements: For 162 of the investigated luminaires one or more of the requirements were failed. Detailed results are listed in table 1, which also gives the gravity of the violations in terms of the Nordic code system for shortcomings in electrical products, as listed by the participants. Classified as F2 (Fail 2: criticism) were 43 luminaires and 74 luminaires were classified as F3 (Fail 3: serious criticism).

The most common safety relevant technical shortcomings were non-compliance with the requirements for the construction, the particular requirements (damaging of insulation, wiring fixed and stability), cord anchorage requirements and the requirements for internal wiring.

Because these are the requirements most frequently violated, they should be part of the test program in future actions on luminaires.

In all, 11 of the investigated luminaires showed no shortcomings. An additional 53 times only administrative shortcomings (CE-marking, DOC and TCF) were found, while 162 luminaires showed technical shortcomings. For all the shortcomings classified as F2 and F3, legal measures were taken according the participants. Legal interventions also took place in a number of cases (28 x) where the non-conformities were either unclassified or classified as F1 (fail 1: remark) or where the administrative requirements were violated.

Because the luminaires were tested against a (small) subset of the standard requirements, it should be realized that the samples that passed all tests in this investigation are not necessarily in compliance. This implies that when the businesses involved are informed about the results, it should be made clear that the fact that a luminaire passed these tests is no proof that it is fully compliant.

Item	**P****	**F1**	**F2**	**F3**	***F unclassified***
CE marking	200				*26**
DOC	99				*127**
Technical File	55				*171**
Technical shortcomings	64	29	43	74	*16*
2.1 Nominal cross sectional area of conductors	207	2	10	7	*0*
2.2 Construction 4.6 (4)	158	3	30	27	*8*
2.2.1 Wireways	177	2	26	17	*4*

2.2.2 Particular requirements	169	2	21	27	*7*
2.3.1 Provision for Earthing 4.8 (7) [only class I]	222	3	0	0	*1*
2.3.2. Electric strength test 4.14 (10.2.2) [for class I and II]	220	1	1	3	*1*
2.4 Cord anchorage 4.10 (5.2.10.1)	185	3	15	22	*1*
2.5 Internal wiring 4.10 (5.3.3)	185	1	20	19	*1*
2.5.1 Twisting 4.10 (5.3.2)	200	3	11	8	*4*
2.6 Protection against electrical shock 4.11 (8)	200	1	6	19	*0*
2.7 Thermal test 4.12 (12)	195	2	11	12	*6*

* These results reflect either available or not available, without classification given by participants.

** Pass: fulfills the requirement, Not Tested, Not Applicable or not filled in.

CLASSIFICATION OF SHORTCOMINGS AND INTERVENTION

Besides the results of tests, participants submitted classifications of the gravity of the violations they determined, as well as an indication of the legal measures and sanctions proposed. For classifying the gravity participants were requested to score according to the Nordic code of common deficiencies, which categorizes the gravity of shortcomings into three categories. Already during preparation of the project several member states indicated that they were obliged by SOPs to use their own classification system, which sometimes conflicts with the Scandinavian system. It may therefore be concluded that presently there is no agreement on the classification of the gravity of non-compliances.

DISCUSSION

CONFORMITY OF LUMINAIRES?

This action was specifically aimed at enforcement and participants were asked to sample those luminaires they suspected not to comply. Despite the fact that a number of participants did not follow this request, sampling was not random. Consequentially the results obtained do not give a dependable estimate of the percentages non-compliant luminaires on the market. In fact the high percentage deviations found might well be attributed to the professionalism of the inspectors that performed the sampling and the inspections. Nevertheless the results indicate that it is easy to find luminaires that do not fulfil the requirements of the LVD, both with respect to the administrative and technical requirements. This finding underlines the experiences of several member states that the degree of compliance of luminaires leaves to be desired. In fact, these findings and the high proportion of luminaires notified under article 9 of the Low Voltage Directive were the primary reason to

select luminaires as the subject of this cross border project.

Considering these results and the previous experiences, Europe-wide continuous attention to all kinds of luminaires seems justified, possibly again as a cross border action. Such a repeat action need not copy the present action, but may be aimed to check the actual degree of conformity in the market. Random sampling and many more samples and inspections would be required to obtain a dependable estimate of the degree of conformity, however. Such a project would need careful planning to assure meaningful results and it would also be expensive.

Many companies appear to neglect assuring conformity with the administrative requirements in the Directive. Declarations of conformity and technical files were often not available or did not fit the luminaires themselves. The LVD prescribes module A for conformity assessment, which amounts to self-certification by the manufacturer or importer into the EU. The choice for module A was made because of the relatively minor hazards associated with electrical products. However, the new and global approach is based on the assumption that the actors comply with the conformity assessment procedures before CE-marking the product in order to assure safe products on the markets. For fragmented markets like the one for luminaires, this assumption does not appear to be valid, if the results of this and previous national actions are indeed indicative.

In this context obtaining accurate information about the compliance with the administrative requirements is important and obtaining this information might well be a suitable follow-up action on this project. Such an action could be restricted to pure administrative checks with randomly selected manufacturers and importers of luminaires. The checks could address multiple products in a single inspection and also try to get information about the reasons for non-compliance. Expected result is a dependable estimate of the degree of compliance with the EU conformity assessment procedure for the businesses importing and manufacturing luminaires.

PROJECT EVALUATION

DESIGN AND MANAGEMENT

In the past several attempts at cross border market surveillance have been undertaken, especially in the Scandinavian countries. They were successful, probably also because they were limited to the Scandinavian countries, where geographical as well as cultural distances are comparatively small.
The luminaires project was the first large scale cross border action in the area of the LVD, with 15 member states across Europe participating. It was devised purposely to gain experience with cross border market surveillance action in order to learn for future cross border projects. For that reason it is important to evaluate the course of the project and the bottlenecks encountered in its organization.

First, if member states agree that cross border market surveillance projects contribute to consumer protection (and to fair conditions for competition) and that they should therefore continue to be organized, projects must be initiated and organized. The present project (and the currently running LVD cross border projects) has been initiated by LVD-AdCo. In practice this means that the functioning chair (or an individual member state) has to take the responsibility for organizing the cross border actions. The development, organization and coordination of cross border actions require a substantial effort and much time from the people involved. Though this was not registered, an estimate of the time spent in designing, organizing, coordinating and reporting the luminaires project by its main responsible member state, amounts to approximately 30 – 40 working days. Because in the present situation the persons involved have generally busy jobs within their own organizations it is difficult to make that much time available. This is the more so, because many market surveillance organizations experience their first responsibility to the protection of the consumers in their own member state and as yet not all see direct benefit from spending manpower on cross border actions.

In the luminaire project (and the following LVD AdCo actions) the work involved was spread by forming a 'task force' of volunteers. That way the project coordinator can be relieved of part of the work involved, which increases the likelihood that he is able to take on the responsibility.

Beside assisting the project coordinator in all matters concerning the preparation and running of the project, the task force also played an important role in representing the member states. In the run-up to the project the participants tend to express a lot of individual wishes with respect to all aspects of the action, which cannot all be realized without jeopardizing the whole project. Therefore these wishes were discussed within the task force, which subsequently made the final decision whether to adopt them. This method of working assures representation of the member states in the design and running of the action, while still allowing efficient decision-making. For this to work confidence of the participants in the task force is a necessity.

INFORMATION EXCHANGE

Though the information exchange mechanism was designed to allow all participants to be aware of the samples taken by the other participants, in practice many of the participants submitted results only after completion of all tests and interpretation instead of immediately after sampling. It may therefore be concluded that sampling took largely place without awareness of what the other participants had sampled and that the information exchange system largely failed to do what it was intended to do.
In the present action this did not lead to many duplicate samples: only two samples taken were identical and these came from a single member state. In fact, because sampling was explicitly directed to manufacturers and importers, duplicate samples were unlikely to occur in this action.

Nevertheless, in future actions flawless information exchange may well be important and it is worthwhile to investigate how improvement can be attained. In this action the reasons for not using the information exchange system provided have not been investigated, but there are several plausible causes. The exchange mechanism used via Circa works for the project coordinators, but is often not accessible for inspectors in the field. If it is, it is not user friendly when the inspector has to check if a specific luminaire has been sampled before. Checking the data takes a disproportionate amount of time and therefore actually complicates his work. Result is that actual checks to see if samples were already taken either cannot be performed at all, or are too complicated to be performed.

Presently several European information exchange systems are available or under development. ICSMS is currently already in use in a number of member states and it is potentially suitable for the information exchange needed in this kind of cross border actions. For the moment it can only solve part of the problem. ICSMS is internet based and is therefore in principle accessible for officers in the field, but lap tops and internet access is required. Neither are always available to the field officers and to make them available requires expensive investments[1].

The RAPEX system may also be an alternative. It is being overhauled and possibly may be arranged to facilitate cross border actions.

[1] Note that ICSMS identifies products by their EAN code (bar code). In this context it is interesting to note, that not all luminaires in this investigation had bar codes. In that case ICSMS still allows identification, but it is not as easy, nor that reliable.

CONCLUSIONS

This first LVD cross border action outside the Scandinavian countries has been executed much as planned, with participation exceeding the expectations.

The project plan specified five aims for the project. Partly these were formulated rather broadly and easy to accomplish, simply by doing the cross border action. The participants in the action did gain experience with cross border market surveillance (aim 1) simply by participating. The task force and the project coordinator gained experience in designing, managing and interpreting the results of the action, because this is what they worked on within this project. The experiences gained also lead to the conclusion that the method used to develop, manage and report the action, using a project coordinator supported by a task force, did succeed in organizing and running this cross border action.

During development of the project and also in the execution phase, information was exchanged on the market surveillance practices for the LVD in the member states (aim 2 and 3). Results were not detailed descriptions of organization and working methods; to obtain that kind of detailed information a project like the mutual visit program should be repeated. What was obtained concerned information that was needed to organize and manage the project, as described in this document. Examples are the observation that some authorities sample at retailers and then trace back the importer/manufacturer, the observation that setting time frames is difficult because of planning and legal constraints and that differences exist between the appraisal of the gravity of specific violations.

Partly these can also be seen as obstacles for effective cross border market surveillance that were identified (aim 4), but those are minor obstacles. A more important obstacle is that it is difficult to mobilize the man-hours required for designing and running such projects. Manpower must be made available by the national market surveillance authorities, which in general have little capacity to spare. If cross border actions are to be organized on a regular basis the difficulty to mobilize capacity is likely to threaten continuity in this activity.

Similarly lack of budget is a problem. The overall costs of cross border actions are probably lower than when all member states would do the same effort by themselves. After all, development cost for the project has to be done only once instead of many times. However, a practical difficulty encountered while working on the luminaire project is the lack of budget for travel. Travel of participants is necessary for both the development and execution of the project; meetings of the task force members and possibly the participants are needed to coordinate the project. Budget for travelling was not always available.

The cross border action on luminaires can be judged a success with respect to the participation of member states. Of the 15 member states that had indicated to participate, 14 submitted results. One member state that initially had not subscribed to participate, also submitted results. In all 226 luminaires were investigated, which exceeded the number originally planned by the participants. Few technical difficulties were reported to the project coordinator during the course of the project. Reporting of the results was slightly overdue in a few cases. The degree of non-conformity was high in the samples investigated, but this can be explained by non-random sampling, as was prescribed in the project plan. Nevertheless, a follow-up action on luminaires seems appropriate (see recommendations).

The last goal of the project, to raise the profile of market surveillance in the field of the LVD in the minds of consumer organizations and industry, has yet to be accomplished. The results of this first LVD cross border project should be presented to and discussed with industry and consumer organizations. Emphasis should be placed on the fact that this first LVD cross border action was predominantly meant to gain experiences with cross border market surveillance and that future cross border actions are already planned.

RECOMMENDATIONS

FOLLOW-UP OF THE ACTION ON LUMINAIRES

Because this action on luminaires specifically asked to sample luminaires suspected to fail the requirements, the results give no representative estimate of the degree of non-conformity in the market. Nevertheless the percentage deviations found, both for administrative requirements and for technical requirements, are such that follow-up is desirable. Repeating a similar action as the one reported here is likely to give similar results.

Therefore it is recommended to organize a follow-up action that attempts to establish a dependable estimate of the conformity of luminaires on the European market. To minimize cost the action could concentrate on administrative requirements only.

Expected results would indicate to which extent the conformity assessment procedure required is adhered to and, when properly executed, information about the reasons for non-compliance with the conformity assessment procedure. Such information is valuable in the development of future market surveillance strategies in this area.

ORGANIZE CROSS BORDER ACTIONS REGULARLY

Businesses increasingly operate across the whole of Europe making use of the free circulation of goods. For industry and trade the single market is a fact. Business does note, however, that market surveillance is still functioning mainly nationally and reproaches the market surveillance authorities for insufficient coordination of their efforts. In the eyes of industry market surveillance can be much more efficient when it is performed on a European scale. Consumer organizations also perceive differences between the member states in the level of consumer protection they provide, partly attributed to differences in the way market surveillance is performed. Both business and consumer organization strongly advocate coordinated market surveillance, a signal that can no longer be ignored.

Cross border actions are a visible response of the market surveillance authorities to these pressures. However, it is important to realize that cross border market surveillance potentially promises increased efficiency and is for that reason of interest to the authorities, too. Instead of developing project plans and action in each member state separately, the design, development, management and reporting of a market surveillance activity has to be done only once. This provides for huge savings, or more market surveillance at the same cost. Moreover, the effectiveness of cross border actions is likely to be higher, because products are checked at the source. Measures taken in the country where a product is introduced on the EU market is of direct benefit for the rest of the European union. Therefore cross border market surveillance actions should be organized on a continuous basis.

From an investigation within the framework of the EMARS project it appears that, up to now, coordinated market surveillance actions only take place when they are initiated centrally, either by Prosafe or the AdCo's. To stimulate pan-European market surveillance in the electrical field initiatives by LVD AdCo are essential.

Therefore it is recommended that LVD AdCo takes the necessary initiatives to organize cross border market surveillance actions regularly, but at least once a year.

SMALL SCALE CROSS BORDER ACTIONS

The EMARS project has surveyed which market surveillance projects are planned or in execution in 2007 and 2008 amongst the participants in that project. Results indicate that similar projects scheduled in different member states are not uncommon. EMARS wants to stimulate coordination between such projects, because both efficiency and effectively are likely to gain when such projects are done in cooperation. Development has to be done only once instead of twice and costs can be shared and duplicate work can be avoided.

LVD AdCo should play a role in stimulating that kind of small scale cooperation between interested member states. It should start collecting the annual activity plans of its members, makes these available for each of them and encourage bi- or multilateral local cooperation.

This recommendation should be seen in connection with similar activities currently under way within the framework of the EMARS project. Since membership of Prosafe (EMARS) and LVD-AdCo partially overlaps, this activity is best developed in close cooperation with EMARS.

CLASSIFICATION OF SHORTCOMINGS

Differences exist between the member states in the grading of shortcomings: the same violation of a specific requirement leads to different assessment of the resulting risk and as a consequence to different interventions. Given the differences in legal systems differences in sanctions imposed in the various member states for similar violations cannot be avoided.
However, differences in the appraisal of the risks caused by specific shortcomings themselves will not be understood by the multinational companies operating in the European union. Those companies will rightly wonder why it is that the same violation is considered a serious risk in one member state, while another member state classifies it as a minor risk.
Since industry operates internationally or even globally and tries to make full use of the advantages of the common market, it is increasingly unjustifiable for market surveillance authorities to let such differences continue and harmonization is urgently needed.

Therefore LVD – AdCo is advised to set up a working group to investigate the possibilities for harmonizing the risk classification of common shortcomings found in electrical products under the LVD.

INFORMATION EXCHANGE

The mechanism for information exchange in this cross border action has allowed the project coordinators access to the information required to run the project and report its results. It failed the requirement that it should provide up-to-date information about the samples to participating personnel in need of that information. For the time being a similar system is used for the extension cords action, but in the long run a better system is urgently needed. In Europe a number of initiatives are under way that aim to improve information exchange for market surveillance: an improved RAPEX system, ICSMS, etc.

LVD-AdCO is recommended to investigate the requirements an information exchange system for cross border actions should fulfill and examine the possibilities to realize such a system.

This effort should preferably be coordinated with the EMARS project, where similar needs exist.

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