

# **Final Report**

**CND**

## **Co-ordination Network on Decommissioning of Nuclear Installations**

**Integrating Activity**

implemented as

**Coordination Action**

Contract number: FI6O-508855

Project Co-ordinator: Colenco Power Engineering Limited

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# FINAL REPORT

## TABLE OF CONTENTS

<b>1. FINAL REPORT</b> .....	<b>3</b>
1.1 Summary of the activities and major achievements .....	3
1.1.1 Introduction .....	3
1.1.2 Start of the Co-ordination Network .....	3
1.1.3 Activities implemented and status of the Co-ordination Network at the end of the first working year of the Co-ordination Network .....	6
1.1.4 Activities implemented and status of the Co-ordination Network at the end of the second working year of the Co-ordination Network .....	8
1.1.5 Activities implemented and status of the Co-ordination Network at the end of the third working year of the Co-ordination Network .....	11
1.1.6 Activities implemented and status of the Co-ordination Network at the end of the fourth working year of the Co-ordination Network .....	13
1.2 Management Activity .....	18
1.2.1 Management activities during the first working year .....	18
1.2.2 Management activities during the second working year .....	20
1.2.3 Management activities during the third working year .....	23
1.2.4 Management activities during the fourth working year .....	29
1.2.5 Summary and conclusions of the management activities after four working years .....	36
1.3 Update of the non-confidential Project information.....	41
<b>2. LIST OF DELIVERABLES</b> .....	<b>46</b>
<b>3. USE AND DISSEMINATION OF KNOWLEDGE</b> .....	<b>53</b>

## ANNEX

*Annex 1 – CD-ROM with the deliverables produced during the reporting period, including summaries and conclusions of the General Meetings*

# 1. Final report

## 1.1 Summary of the activities and major achievements

### 1.1.1 Introduction

The purpose of the project was to organise and operate a Co-ordination Network on Decommissioning of Nuclear Installations (CND) with the participation of organisations from the European Union involved in decommissioning activities. The aims of the CND were to encourage continuous improvement in capability and effectiveness that should lead to increased competitiveness.

The CND was managed by a Steering Group driving forward at increasing and transferring knowledge and facilitating training and experience exchange so that organisations derived maximum benefit from previous and current EC funded projects. It was also the aim to promote common understanding of key issues within the decommissioning community; to facilitate provision of relevant advice to Commission staff; and to continue the development of mutually beneficial collaborations with international organisations (IAEA, NEA).

The Steering Group would therefore organise general meetings, topical meetings, seminars, and/or workshops with participation of experts and representatives of organisations interested in contributing to the activities of the CND. During these meetings, specific issues relating to decommissioning or decontamination would be discussed, and based on the opinion of the participants initiatives would be defined or proposed. In such cases, one or more members of the Steering Group would manage the activities developed in specific working groups. Organisations interested in contributing to achieve the objectives of such working groups would be invited to provide representatives to participate in the activities of a working group.

Through these activities and through individual contacts, individual experts with interest in the activities of the CND and representing a wide spectrum of organisations from the European Union might give advice and support the Steering Group in order to achieve the objectives of the CND and promote future expansion.

### 1.1.2 Start of the Co-ordination Network

The contract for the CND was signed between the European Commission and Colenco Power Engineering Ltd on December 15, 2004. A signed copy was sent to the CND Co-ordinator on December 20, 2004. The official starting date of the contract was January 1, 2005. The content of the contractual activities was listed in Annex I to the contract. Administrative and financial implications were given in Annex II. A copy of these documents was distributed to all partners.

The EC requested the partners to complete and sign a specific “FORM A – ACCESSION TO THE CONTRACT”, expressing their consent to become a contractor to the contract signed between the Commission of the European Communities and Colenco Power Engineering Ltd, and accepting in accordance with the provisions of the aforementioned contract all the rights and obligations of a contractor.

The CND Co-ordinator prepared a Consortium Agreement in order to specify the organisation of the work between the Contractual Partners, to organise the management of the CND, to define the rights and the obligations of the Contractual Partners, including but not limited to their contribution, liability and indemnification, to supplement the provisions of the Contract relating to the CND, including those concerning Access Rights, and to set out any other rights and obligations of the Contractual Partners

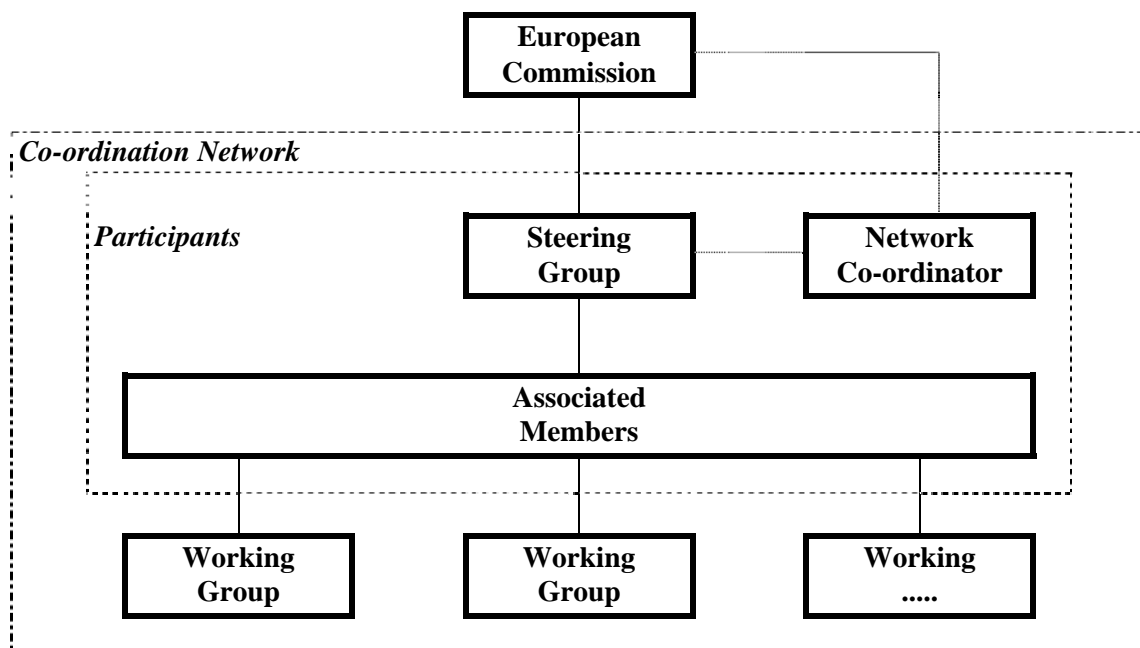
relating to the CND, but not conflicting with those of the Contract. All Contractual Partners signed the Consortium Agreement.

The Contractual Partners were considered to be the official Members of the CND and had a representative in the Steering Group of the CND, i.e.:

- |   |                  |
|---|------------------|
| • Colenco Power Engineering Ltd                 | Lucien Teunckens |
| • Nuclear Research Institute Rez                | Jozef Podlaha    |
| • Energiewerke Nord GmbH                        | Hakan Sterner    |
| • Forschungszentrum Karlsruhe GmbH              | Luis Valencia    |
| • University of Hannover                        | Ralf Verseemann  |
| • Empresa Nacional de Residuos Radiactivos s.a. | Sergio Vidaechea |
| • Società Gestione Impianti Nucleari p.a.       | Luigi Brusa      |
| • Nuclear Research and consultancy Group        | Leo van Velzen   |
| • AllDeco Ltd                                   | Dusan Majersky   |
| • DECOM Slovakia spol. s.r.o.                   | Vladimir Daniska |
| • RWE NUKEM Ltd                                 | Anisur Rahman    |

The CND Co-ordinator developed a Strategic Plan in order to implement the objectives of the CND during the start-up phase. It also included guiding principles for working within the Steering Group, within the CND meetings and within meetings of the working groups.

In a first meeting of the Steering Group the Mission Statement for the CND was discussed, reviewed and approved. In addition, a proposal for the practical organisation as well as for the terminology to be used for the CND was discussed and approved. A flow chart of the organisation is shown below.



The approved organisation included that:

- As indicated in the contract, the Steering Group was responsible for the development and application of arrangements and procedures for effective implementation of the CND.
- The official delegates of the participating organisations in the EC-contract were the Members of the Steering Group.
- Participation in the CND as an Associated Member was open to interested organisations, manufacturers, users, universities, research centres upon signing a participation agreement with the CND Co-ordinator.

- On approval from the EC, participation in the activities of the CND from third countries might be allowed within the respect of the agreed terms and conditions and other applicable EC limitations.
- In some areas, important for the preparation of decommissioning activities in specific countries, participation in the activities of the CND of partners from third countries like Russia and Ukraine might be essential to achieve the objectives.
- Working groups might be set up with the participation of Associated Members; these working groups would be managed and guided by the Members of the Steering Group.
- Steering Group Members and Associated Members were considered to be the participants in the CND.

Each Member of the Steering Group agreed to take responsibility for at least one of the work areas that would be considered relating to the objectives of the CND. Among others, these areas and the responsible managers (underlined) and supporting managers were:

- |  |   |
|--|---|
| • Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects.   | <u>V. Daniska</u> ,<br>H. Sterner, L. Valencia    |
| • Material Management and Characterisation Techniques, and Recycle and Reuse of Materials.   | <u>D. Majersky</u> ,<br>J. Podlaha, S. Vidacchea  |
| • Site Characterisation, Remediation and Reuse.  | <u>L. Van Velzen</u> ,<br>L. Brusa, A. Rahman     |
| • Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety.                    | <u>A. Rahman</u> ,<br>F. Van Gemert, D. Majersky  |
| • Environmental and Socio-economic Aspects, and Public Perception, Public Relation.  | <u>J. L. Santiago</u> ,<br>R. Jansma, J. Pritrsky |
| • Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training. | <u>R. Versemann</u> ,<br>L. Valencia, J. Rezbarik |
| • Co-operation and relations with third parties and international organisations.   | <u>CND Co-ordinator</u> , all                     |

For each working area, the terms of reference, work plan and work schedule had been prepared, discussed and agreed. The responsible managers and supporting managers were invited to further develop the presented ideas and start the proposed activities.

Organisations interested in participating in the activities of the CND had been searched. The fundamental criterion for participation in the CND as an Associated Member would be the interest for the participant himself and for the other participants in the CND. The participants in the CND should therefore show a potential to transfer to other participants information, technology and good practice which could be useful to their own activities and to future decommissioning projects. In more general terms, they should contribute to keep, enhance and promulgate the European expertise and competitiveness in the decommissioning field at the international level and within national and international organisations, particularly in view of the EU enlargement process.

Based on these considerations, the terms of reference and a model Associated Membership Agreement for participation in the CND were discussed, reviewed and approved. Based on the terms of reference, the Steering Group would evaluate on a regular basis how each participant was contributing to the activities of the CND, and would decide on prolonged participation.

A coherent and consistent Project Communication Action Plan was defined and proposed to the EC scientific officer to be implemented by the Consortium during the life of the project.

The relationships with the EC Directorate General Transport and Energy (DG TREN), the International Atomic Energy Agency, the OECD/NEA/Co-operative Programme on Decommissioning (CPD), the Working Party on Decommissioning and Decontamination (WPDD) of the OECD/NEA,

the United States Department of Energy (US DOE) and the Japanese RANDEC were considered. It was agreed that DG TREN, the IAEA and the CPD would have an observer in the Steering Group. The discussions with the WPPD were expected to be finalised in the beginning of 2006. The US DOE and the Japanese RANDEC would not participate as an Associated Member in the CND.

It was further discussed that operational tools were required to support the activities within the CND. The CND would encompass and take maximum benefit of the tools that were developed within the former EC Framework Programmes:

- The operational website of the Thematic Network on Decommissioning of Nuclear Installations (TND).
- The database on technical and cost aspects of decommissioning (EC-DB-NET2).
- The EC website on decommissioning (EU-DECOM).
- The information library (database EC-CDD).

It was requested that the related software tools were grouped and integrated in one system in order to ensure the long-term continuity of the entire CND. It was also requested to integrate the technical support and the maintenance of all operational tools and to ensure that no further development was envisaged but primarily use and maintenance with technical update of the integrated system in view of solving operational problems. The CND Co-ordinator was given the mandate to ensure the required activities for the integration of the related tools.

It was agreed to organise an introductory meeting with interested organisations before the end of the first term of the year 2005. The objectives of the meeting should be creating interest in the CND activities, proposing the terms of reference that were developed by the Members of the Steering Group, asking for other interesting items that could be developed in future, and presenting and distributing the Associated Membership Agreements for signing.

### **1.1.3 Activities implemented and status of the Co-ordination Network at the end of the first working year of the Co-ordination Network**

For each working area, the Members of the Steering Group prepared the terms of reference, work plan and work schedule to be presented at a first meeting with the participants in the CND.

The activities within a working group would include collecting information within projects and/or associated or outside sources, analysing, interpreting and correlating the information, confirming the interpretations and correlation with sources, and drawing conclusions (the detail of operation could vary depending on the area or subject of the working group). Members would be appointed by organisations interested in participation. Participation in the activities of a working group from non-Associated Members of the CND was acceptable if they paid for their own contributions and costs. The Steering Group Member in the working group would provide periodic progress reports from the working group to the other Members of the Steering Group and to the CND Co-ordinator who would inform the EC of the activities that were carried out.

The work of a working group would be concluded with a final report covering the objectives of the group, how the objectives were met, and the results and conclusions. On a case-by-case evaluation, the EC could decide to have the report published as an official EC-document. When the activities of a working group were concluded, the opportunity could be evaluated to organise a seminar or a workshop in order to discuss and agree conclusions prior to issuing the final document. The attendance of such organisations could include a wider audience than just the members of the working group and the Steering Group, or the participants in the CND. Funding for the organisation of such seminars or workshops was not foreseen in the CND contract, however.

The following analyses were carried out in order to define the required actions for the implementation of the requested integration of the operational website of the Thematic Network on Decommissioning

of Nuclear Installations (TND), the database on technical and cost aspects of decommissioning (EC-DB-NET2), the EC website on decommissioning (EU-DECOM) and the information library (EC-CDD):

- Analysis of the required changes in order to convert the operational website of the TND into an operational website for the CND.
- Analysis of the required activities in view of the integration of the EC-CDD into the CND website.
- Analysis of the required activities in view of the integration of the EU-DECOM website into the operational website of the CND.

The results of these analyses were included in a dedicated report that was discussed with the EC officers responsible for the technical, scientific and financial follow-up of the contract for the CND, in order to justify the selection of the company CORE2 as a subcontractor for providing the required services.

Considering the foregoing analyses and after agreement of the EC, the operational website of the CND had been adapted, keeping the structure of the former TND website, as well as the various sections and work areas. The required changes were limited to improving and completing the information available within the former TND website based on:

- Changing specific notifications, such as the names of the responsible managers of the various work areas.
- Storing documents or references collected for developing the CDD under the related document sections of the various work areas of the CND.
- Creating a new section in the open public area of the CND website for storing the information comprised in the former EU-DECOM website which was collected in Word files, and taking care of the functionality of this new section and of the layout and the updated, corrected and completed content of the information.

As a result, the CND website was characterised by an **open public area** with general information about the “Mission”, the “Mission Statement”, the “Strategic Options”, and the “Values” of the CND, about news and events relating to CND activities, about results that had been obtained, about decommissioning and decommissioning activities in Europe, including the information considered in the EU-DECOM website, and about other important subjects. In addition, a link to the database on technical and cost aspects of decommissioning (EC-DB-NET2) had been created.

A **protected member area** was made available in order to enable the participants in the CND to interact with each other and to exchange information. The **member area** was intended to be a single “meeting place” to keep the CND participants closer to each other and to improve team collaboration and communication. Access to the protected member area was granted by the CND Co-ordinator after an Associated Membership Agreement had been signed for participation in the CND. The **member area** comprised:

- A document area for storing documents of any file format relating to specific issues and CND participants had the opportunity to add comments to each document. Through a notification service, every participant got per e-mail information about newly arrived documents.
- Discussion forums where CND participants could discuss issues through an online message exchange, while also e-mail notification was available.
- A “Contact Manager” section with address information about the participants in the CND, as well as the participant profile, and a possibility to send e-mail messages and schedule meetings among CND participants.

Specific **protected working group areas** were available in order to enable the participants in a working group or a working area to interact with each other in the working group and exchange information. The **protected working group areas** were intended to be “meeting places” to enable CND participants that were interested in the activities of a specific working group, to improve

collaboration and communication, and to create discussion sessions. Access to a protected working group area was granted by the CND Co-ordinator after confirmation that the Associated Member participated in the activities of the specific working area. Similar as to the protected member area, a protected working group area comprised:

- A document area for storing documents of any file format relating to working groups and participants of a working area had the opportunity to add comments to each document. Through a notification service, every participant got per e-mail information about newly arrived documents. The information collected in the framework of the Compendium on the State-of-the-Art in Decommissioning had been added to the document sections in the related working group areas.
- Discussion forums where participants of a working area could discuss issues through an online message exchange, while also e-mail notification was available.
- A “Contact Manager” section with address information about the participants in the specific working group area of the CND, as well as the participant profile, and a possibility to send e-mail messages and schedule meetings among CND participants.

The main features of the website were:

- Internet allows exchange of information at any time and from any place.
- Effective access to available information at a reasonable price.
- An easy solution to allow CND participants to interact with each other and exchange information, including Shared File Storage, discussion forums, a “Contact Manager” section, automatic notifications, a tool that was simple to be used and would not require training, experience in project management or Internet experience.

The CND website was available at the internet address <http://www.ec-cnd.net>.

#### **1.1.4 Activities implemented and status of the Co-ordination Network at the end of the second working year of the Co-ordination Network**

Following implementation of the requested integration of the operational website of the Thematic Network on Decommissioning of Nuclear Installations (TND), the EC website on decommissioning (EU-DECOM) and the information library (EC-CDD), within the CND website a link to the database on technical and cost aspects of decommissioning (EC-DB-NET2) was established. Though access to the EC Database on Decommissioning was still not completely clarified, such access had been given to all active members of the CND.

A first introductory meeting with interested organisations of the CND had been held in January 2006. The objectives were creating interest in the CND activities, proposing the policy papers that were developed by the Members of the Steering Group, asking for other interesting items that could be developed in future, presenting the terms of reference and the Associated Membership Agreements for participation, and training CND Members in using the CND website and the database on technical and cost aspects of decommissioning (EC-DB-NET2).

In an introduction to the meeting, the creation of the Co-ordination Network on Decommissioning of Nuclear Installations was described and an overview was given of the organisation of the Network, the Mission Statement, the Terms for Participation, the development of Associated Membership Agreements and the Financial Terms relating to participation. The development of a specific website for the Co-ordination Network on Decommissioning of Nuclear Installations was presented, through which the future participants in the activities of the Network would be able to communicate, and the promulgation of information could be effectively supported. In addition, an overview was given of the characteristics and the possibilities of the EC database on tools and costs (EC-DB-NET2).



Following the presentations relating to the CND website and the EC database on tools and costs, the participants in the meeting got the opportunity to get personal access to both operational software systems. In two specific sessions, the participants were trained in the use of the CND website and the database on tools and costs (EC-DB-NET2). Extended additional information was given about the functional features of both software tools and about their future role as a “meeting place” to keep the CND participants closer to each other and to improve team collaboration and communication within the CND.

Discussions were held on the future activities of the Co-ordination Network. In view of these discussions, the Members of the Steering Group had prepared terms of reference relating to the work areas defined within the Mission Statement of the CND. In 6 short presentations, the Members of the Steering Group had given an overview of the possible contents of future work as proposed in the terms of reference. After the presentations, the participants was given the time to discuss the contents of the terms of reference and to raise questions, comments and recommendations for the future.

When discussing the terms of reference for the proposed working areas for the Co-ordination Network, the participants were invited to work in groups that reflected the international character of the discussions. Each group had a facilitator to co-ordinate the discussions and a “rapporteur”. The “rapporteurs” were given the opportunity to prepare the results and the conclusions of the discussions which could indicate the need for the organisation of conferences, workshops, for the preparation of a document, a study, for the creation of a working group, or for other short term or long term actions.

After the discussions, a summary was presented of the comments and recommendations that were given by the working groups relating to the proposed future activities of the Co-ordination Network. It was agreed that these preliminary concluding remarks would be further developed and added to the summary record of the meeting as a separated report.

The report of this first meeting was put on the CND website for comments of all participants, including the conclusions and the proposals for starting working groups, as well as a request for candidates for participation in the working groups. It was expected that at least 15 to 20 organisations would show interest in participation.

The comments on this report received from various participants in the first general meeting were integrated in the final report with the conclusions from the discussions on the proposed future activities for the CND. The Members of the Steering Group accepted to take a leading role in the development of activities in the various working areas.

Relating to the development of further activities, it had to be accepted that reimbursement of costs was limited to the terms specified in the contract. As the scope of work within the CND might cover a broad area of interest and create a wide spectrum of activities, it was obvious that priorities had to be given and restrictions accepted in order to stay within the limits of the budget and in order to ensure that adequate results might be obtained within the framework of the initiatives that were proposed and defined by the participants.

Based on the discussions at the 1st General Meeting of the CND, the Steering Group Members reviewed the Terms of Reference for the various working areas, including:

- An *introduction/background* with background and the main reasons for undertaking the initiative;
- The *objectives* with a brief description of the objectives and the aims of the initiative;
- The *scope of work* with the project overview, specifying the main relevant tasks in which it would be divided and the potential topics or issues to be discussed;
- The *related information and activities to be considered* with bibliographical references and information to be used, related activities which may be complementary to the initiative and the needs for co-ordination with and support from other groups;
- The *modus operandi* with the project duration, the project schedule and the planning of the work programme, a description of the work stages in which the project would be split, the methodology of

work for the different stages and tasks, and the organisation of the working group, the meetings and/or workshops to be held, and the expected input from the participants in the various tasks;

- The **reporting** with the expected deliverables as periodic progress reports, the final report and the time schedule for the deliverables.

The reviewed documents were put on the CND website with the aim to call for interested organisations to participate actively in the working areas, as well as to call for relevant information.

The Steering Group Members also agreed to plan and to follow the time schedule for the implementation of the activities in the defined working areas.

Following the conclusions and the recommendations from the first general meeting, the Steering Group was expected to initiate the required initiatives (working groups, data collection, information exchange via the CND website, preparing reports, or others), which would be communicated to the Members and Associated Members of the CND via the CND website.

In view of these initiatives, the participating organisations were asked to express their interest in supporting activities of such working groups through a letter of intent to the CND Co-ordinator. The Members of the Steering Group would make the required contacts in order to start the proposed activities. More than 30 organisations applied (effectively) for Associated Membership of the CND, and some 50 participants from these organisations were expected to be able to contribute to the activities of the various working areas.

With the newly defined working areas and the related discussion areas fully available on the CND website, it was expected that the activities from the individual participants in these working areas might have started at large scale from the beginning of March 2006.

Further activities would include providing the required documents and/or reports in order to encourage the discussions via the CND website and requesting for additional information from the members of the working areas. The results of these activities would be reported at a second general meeting of the CND that would be held in September or October of 2006.

Six months were considered to be the necessary time period for the managers of the various work packages of the CND to develop and support the initiatives that were announced and accepted during the first general meeting. Therefore, September 2006 was considered to be the time to make a round-up of the activities developed within the CND, to evaluate the progress of work, and to update the objectives, the strategies and the management activities if necessary.

It had to be recognised, however, that at the end of 2006, except for specific work areas, no significant progress had been made in the various activities and that a quite large effort should have to be developed in the coming months to achieve the expected final results.

### **1.1.5 Activities implemented and status of the Co-ordination Network at the end of the third working year of the Co-ordination Network**

During the first working year of the CND, the TND website was completely converted into the CND website and the responsibilities for the various work areas had been adapted. Also the information relating to the Compendium on Decommissioning was consolidated in the CND website. The information relating to the EU-DECOM website was analysed, grouped, restructured, reviewed and stored as individual pdf-files within the CND website. Access to the EC database on costs and tools was given through the CND website for all Members and Associated Members of the CND. As such, in principle, the objectives relating to the integration of the former TND-website, the former CDD-website, the EU-DECOM-website and the EC-DB-NET2 had been achieved.

A last step would be a full integration of the CND website and the database on costs and tools EC-DB-NET2 on one single platform. This might be implemented easier and less expensive if all components would be available on the same server. In addition, the documents stored in the open public area under the section “About decommissioning and decommissioning activities in Europe”, including the information considered in the EU-DECOM website, could be made accessible for updating by the owner of the information. Other elements for improving the use of the CND website could be considered as well.

The CND Co-ordinator had made a further evaluation based on some specific additional considerations:

- The CND part of the website was posted on a server of the private company CORE2 in Greifswald, while the EC-DB-NET2 database on costs and tools was an ORACLE-database posted on a server of the University of Hannover. The management software for both systems had been developed by CORE2.
- The Consortium for the CND was the owner of the entire CND website, including the EC-DB-NET2 database.
- Information available on the CND website could in principle be changed only by the supplier of this information. Some suppliers were no longer a Member or an Associated Member of the CND, however.
- All systems were in an operational condition and operation was consolidated until the end of the contractual period of the EC-CND project, i.e. in principle until the end of the year 2007, a period that was later extended till the end of the year 2008.
- Further implementation and maintenance of the system if under the management of the University of Hannover would require financial means to enable the University of Hannover to implement these activities.
- As decommissioning was considered to be an industrial activity, there were no longer financial resources available in the Research and Development Programme of the EC to support the activities relating to the CND website. It was very unlikely that EC-DGTREN would make financial means available to support activities in that area.
- If the activities of the CND project were not prolonged after the end of the contractual period, private companies could be interested in the global CND website in order to use the characteristics of the website for commercial reasons.

Considering these evaluations, considering that it was explicitly the aim of the Steering Group to bring the project to a good end, and considering that it was questioned to be necessary for the project to have all elements on one server, the Steering Group had decided to keep the status-quo relating to the entire system of the EC-CND website and wait for future interests.

With the start of the third working year of the CND, the CND Co-ordinator had also made an evaluation of the progress of work, the further work plan and work schedule in the various working areas and had concluded that:

- The progress of work within Work Package 1 was in line with the planned schedule.
- The first part of Work Package 2 relating to the aspects “Strategies, Policies and Funding” had been finalised. The second part relating to “Programme Management, Project Management and Costs” had incurred a delay of about one year.
- Considering the time schedules relating to the activities within the co-operating working groups of the OECD/NEA WPDD and CPD, the time schedule relating to the activities within Work Package 3 had incurred a delay of one year.
- In general, it was considered that the activities relating to Work Package 4 would require an additional year.
- The progress of work within Work Package 5 had incurred a delay of about six months. The completed final report was expected to be ready by the end of June 2008.
- Considering the additional activities required to collect the necessary data relating to Work Package 6 it was considered that an additional year would be necessary.
- The activities within Work Package 7 suffered from a lack of interest from companies and institutions to provide data relating to decontamination and decommissioning activities in the structure of the EC-DB-NET2 database on costs and tools. In order to improve the added value of the activities within Work Package 7, it was decided to derive a benchmark exercise from various sources and invite companies and institutions to comment on the benchmark, and provide additional documents relating to dismantling and decontamination techniques in the way they feel comfortable with. This newly defined objective within Work Package 7 would certainly benefit from an extension of the time schedule for the CND project by one year.

The delays in several Work Packages were due to the difficulties encountered to get information and to have adequate support from Associated Members of the CND in the specific Work Packages, but certainly also to the lack of support from and the withdrawal of three partners in the contract for the CND, creating additional tasks for the 8 remaining partners that could only be implemented in series with the planned tasks.

During the first three years of the working period of the Co-ordination Network, the CND Co-ordinator had sent several responses to organisations interested in participating in the activities of the CND. The fundamental criterion for participation in the CND as an Associated Member had been confirmed to be the interest for the participant himself and for the other participants in the CND. The participants in the CND should therefore show a potential to transfer to other participants information, technology and good practice which could be useful for their own activities and for future decommissioning projects. In more general terms, they should contribute to keep, enhance and promulgate the European expertise and competitiveness in the decommissioning field at the international level and within national and international organisations, particularly in view of the EU enlargement process. More than 30 organisations had shown interest in participating in the activities of the CND. Many of the responses for membership had remained unanswered, however.

Nevertheless, the activities within the various Work Packages were expected to provide documents that could have positive impacts on the state-of-the-art in decommissioning and decontamination, and considering that it was explicitly the aim of the Steering Group to bring the project to a good end, the CND Co-ordinator was recommended to ask the EC for an extension of the time schedule relating to the CND project by one year, without any request for additional financial means, however.

As a result, the CND Co-ordinator had prepared a file with the necessary information in order to extend the contractual period for the EC-CND project “Co-ordination Network on Decommissioning of Nuclear Installations” (Contract No. FI6O-508855) till the end of the year 2008; to terminate the participation of EWN, SOGIN and AllDeco in the Contract from August 1, 2007; and to modify Annex I “Description of work” in order to implement a redistribution of the work, as indicated in detail in Section 1.2.3, “Management activities during the third year of the Co-ordination Network”.

In a letter of September 2, 2007, the European Commission agreed with the request of the Steering Group to change the duration of the contract to 48 months. The CND Co-ordinator immediately informed the remaining partners in the Contract for the CND about this decision.

As a result, the responsibilities for the Work Packages were reviewed and accepted as follows:

- Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects. V. Daniska, L. Valencia, L. Teunckens
- Material Management and Characterisation Techniques, and Recycle and Reuse of Materials. L. Valencia, J. Podlaha, S. Vidaechea, L. Teunckens
- Site Characterisation, Remediation and Reuse. L. Van Velzen, A. Rahman, L. Teunckens
- Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety. A. Rahman, F. Van Gemert, L. Teunckens
- Environmental and Socio-economic Aspects, and Public Perception, Public Relation. S. Vidaechea, R. Jansma, J. Pritsky, L. Teunckens
- Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training. A. Schenk, L. Valencia, L. Teunckens
- Co-operation and relations with third parties and international organisations. CND Co-ordinator, all

In addition, considering the actual developments within the CND, and the reduced/limited support that could be obtained from the Associated Members, it was considered that the CND had evolved from an open forum to a more limited “club” of interested partners. Considering this evolution, it was discussed that there was no longer a need to have a General Meeting of the CND in the year 2007, but that more specialised workshops could lead to more efficient results. A final General Meeting of the CND could be organised in September-October 2008. During this meeting, the results of the activities developed in the various Work Packages could be presented, discussed and finally tuned in order to prepare the final reports relating to the activities of the CND.

For this reason, the CND Co-ordinator had invited the Managers of the various Work Packages to organise the necessary meetings (2 to 3 meetings IAEA style, each meeting taking maximum or less than 1 week) with the partners in the Work Packages and other members of the Steering Group in case they showed interest. The objective of these meetings would be to collect the required information and prepare a draft document that could be discussed, completed with available information and finalised. If requested, these meetings could be connected to meetings of similar NEA working groups. Sending a possible draft document to the participants in an early phase before the meetings was considered to be necessary. A final review and formatting of the document could be emphasized to be done at the end or after the meetings.

#### **1.1.6 Activities implemented and status of the Co-ordination Network at the end of the fourth working year of the Co-ordination Network**

A first ad hoc meeting of the CND was held in April 2008 at the offices of NUVIA Limited in Warrington, United Kingdom to discuss the draft report relating to the activities of **Work Package 5**.

With Mr. Anis Rahman as the Work Package 5 Manager, detailed information on the institutional and legal framework for nuclear activities, on the regulatory framework, licensing and de-licensing of nuclear installations including decommissioning plan, on radiological protection and industrial safety for all 25 EU Member States and two Applicant Countries (Romania and Bulgaria) had been collected by means of a questionnaire that had been sent to nuclear regulatory authorities, competent bodies, government organisations of all 27 Member States of the European Union. The level of response to the questionnaires had varied, some Member States having replied quickly, whereas others failed to respond even after repeated reminders.

The received responses had been compiled, assessed and analysed with regard to commonalities and divergences. Country profiles of individual Member States had been generated which had been sent to the respective country's competent bodies for final verification and endorsement. A large number of countries had failed to respond to the prepared country profiles, however.

A draft report had been prepared by the Work Package Manager including a description of individual Member State's present status and identifying common grounds and divergences. On the basis of this assessment, an attempt to harmonise regulatory framework and regulatory standards in radiological protection and radioactive waste management amongst Member States had been undertaken.

In an extensive and detailed discussion, the participants in the meeting had gone through the report. The comments and suggestions made were incorporated in the revised version of the report by the Work Package Manager and a final quality review was made by the CND Co-ordinator. As such, the activities within Work Package 5 could be finalised.

A second ad-hoc meeting of the CND was held in May 2008 in the offices of the Nuclear Research and consultancy Group in Arnhem, The Netherlands to discuss the preparation of the report relating to the activities of **Work Package 4**.

Considering the Terms of Reference (TOR) for Work Package 4, "Site Characterisation, Remediation and Reuse", the Work Package 4 Manager, Mr. Leo van Velzen, proposed to develop the report under the name *European Radiation Survey and Site Execution Manual (EURSSEM)* providing a consistent consensus approach and guidance to conduct all actions at radioactively contaminated and potentially radioactively contaminated sites and/or groundwater up to their release for restricted or unrestricted (re)use. This approach and guidance was expected to be both scientifically rigorous and flexible enough to be applied for a diversity of site (surface) clean-up conditions.

The title EURSSEM includes the term "survey" because it should provide information on control, planning and conducting surveys, and the term "execution" because the processes outlined in the manual should allow interested persons/organisations to execute planned actions.

It was envisaged that the EURSSEM guidance should:

- focus on demonstration of compliance with regulations and standards during all stages of a project.
- include as well the general functional approach "what has to be done or what should be required", as detailed guidance "how it can be done or how it can be demonstrated that requirements are met".
- not be intended and never have the intention to be prescriptive (a consensus approach should be advocated).
- primarily be written from rendering a service point of view according to the best available practice.

All participants in the meeting agreed on the proposal to develop the *European Radiation Survey and Site Execution Manual (EURSSEM)*, but at the same time recognised that finalising the related report before the end of the EC-CND project (31 December 2008) would be a great challenge.

Based on a thorough literature survey relating to available information that could be used for developing the proposed sections of the *European Radiation Survey and Site Execution Manual (EURSSEM)*, an analysis was made to identify the most important references relating to the main sections of the proposed *EURSSEM*. A further analysis of the related documents resulted in matrix structures of relevant information for the four main sections. It was agreed that, based on grouping of the information in the matrix format, drafting of the various sections would be prepared for:

- Section 1, "Introduction", by Work Package 4 Manager, Mr. Leo van Velzen.
- Section 2, "Develop contaminated land strategy", by CND Co-ordinator, Mr. Lucien Teunckens.
- Section 3, "Site Characterisation", by Work Package 4 Manager, Mr. Leo van Velzen.
- Section 5, "Reuse – Stewardship", by Mr. Frank Van Gemert.

Based on an additional agreement relating to their contribution to the CND activities, DECOM a.s. accepted to draft Section 4, “Remediation – Restoration” of the *EURSSEM* under the management of Mr. Marek Vaško.

In specific ad hoc meetings in June 2008, in Baden, in June 2008 in Trnava, in July 2008 in Arnhem and in a continuous exchange of progress of work, including review and update activities, the various draft documents had been prepared.

In extensive and detailed discussions, interim and latest versions of the various sections were discussed during the fourth meeting of the Steering Group of the CND in September 2008, in Trnava, and during the fifth meeting of the Steering Group of the CND in December 2008, in Trnava. At the end of the December 2008 meeting it could be concluded that:

- Section 1, “Introduction” had been finalised and quality reviewed; a final review of the section might be required as soon as the full document would be ready.
- in Section 2, “Development of a contaminated land strategy”, expected shifts of information from Section 4, “Remediation – Restoration” had been implemented and additional information included to obtain a better balanced document; additional improvements were planned and finalisation of Section 2 would require some effort beyond the time schedule for the EC-CND project to be ended (31 December 2008).
- Section 3, “Characterisation of radioactively contaminated sites” had a very specialised character and some elements were still missing; providing this information would require extended effort beyond the time schedule for the EC-CND project to be ended (31 December 2008).
- Section 4, “Remediation – Restoration” had been finalised and quality reviewed; a final review of the section might be required as soon as the full document would be ready.
- Section 5, “Long-term stewardship” could not have been started yet due to a lack of time. Mr. Leo van Velzen confirmed that a follow-up of the activities would be made and he ensured that he would take care of the finalisation of the activities based on his own resources if this had to be done after 31 December 2008.
- a “Glossary” and some specific appendices to the document were being prepared.

It was once again recognised that finalising the related report before the end of the EC-CND project (31 December 2008) would be a great challenge. The Work Package 4 Manager, Mr. Leo van Velzen promised, however, that the additional work would be implemented based on his own resources if necessary, and the CND Co-ordinator also confirmed that he would implement the final quality review of the document based on his own resources, if necessary.

Based on these commitments, finally a well balanced comprehensive document could be presented.

The responsibility for **Work Package 3**, “Material Management and Characterisation Techniques, and Recycle and Reuse of Materials”, initially managed by Mr. Dusan Majerski from AllDeco, had been taken over by Mr. Luis Valencia of the Forschungszentrum Karlsruhe.

In order to avoid duplication of work, it had been agreed that in the areas relating to the release of sites, the release of materials, the demolition of concrete structures and release measurements, a co-operation would be established with the Working Party on Dismantling and Decommissioning (WPDD) and the Co-operative Programme on Decommissioning (CPD) of the Nuclear Energy Agency (NEA) of the Organisation for Economic Co-operation and Development (OECD). The activities within the OECD/NEA WPPD and CPPD had experienced serious delays or had come to a stand-still, however, and the Work Package 3 Manager, Mr. Luis Valencia, had experienced specific personal problems.

On the other hand, several members of the Steering Group of the CND had participated very actively in task groups of the IAEA, preparing several documents in the areas of material management and characterisation techniques, and recycle and reuse of materials. This means that, though not

specifically developed under the organisation of the CND, the related documents could be produced with the support of and based on information provided by members of the Steering Group of the CND.

As a result, based on a thorough literature survey relating to available information that could be used for developing the proposed sections of the Work Package 3 report “Material Management and Characterisation Techniques, and Recycle and Reuse of Materials”, an analysis was made to identify the most important references relating to the main sections of the proposed Work Package 3 report. A further analysis of the related documents resulted in matrix structures of relevant information for the main sections.

Based on an additional agreement relating to their contribution to the CND activities, DECOM a.s. accepted to draft the Work Package 3 report “Material Management and Characterisation Techniques, and Recycle and Reuse of Materials” under the management of Mr. Peter Salzer.

In extensive and detailed discussions, an interim and a final draft version of the Work Package 3 report were discussed during the fourth meeting of the Steering Group of the CND in September 2008, in Trnava, and during the fifth meeting of the Steering Group of the CND in December 2008, in Trnava. The comments and suggestions made were incorporated in a revised version of the report by Mr. Peter Salzer and a final quality review was made by the CND Co-ordinator. As such, the activities within Work Package 3 could be finalised.

Based on the Terms of Reference (TOR) for **Work Package 6**, “Environmental and Socio-economic Aspects, and Public Perception, Public Relations”, the main issues resulting from the conclusions developed within the former Thematic Network on Decommissioning and proposed as topics of interest for the CND, were decided to be a review of the Screening and Scoping stages during the decision making process in the Environmental Impact Assessment (EIA) process, Public Perception and Public Relation in D&D Projects and the identification of the effects on the local community during a plant closure and the start of a D&D programme.

During the collection and evaluation of information relating to these issues, several difficulties had been encountered, such as:

- a lack of interest of Associated Members of the CND in the area of Work Package 6;
- difficulties in obtaining case studies due to the small number of countries represented by the participants and as a result of the lack of financial remuneration for Associated Members of the CND;
- the selection of a small number of case studies, outside of the framework of the CND Associated Members.

Nevertheless, with the support of interested members of the Steering Group, the Work Package 6 Manager, Mr. Sergio Vidachea, could collect information from some fourteen countries. Based on this information he could prepare and present a report relating to the Work Package 6 activities, “New Considerations Relating to Screening and Scoping within the Environmental Impact Assessment Process. Public Participation and Socio-economic Aspects in Decommissioning of Nuclear Power Plants”.

In extensive and detailed discussions, an interim and a final draft version of the Work Package 3 report were evaluated during the fourth meeting of the Steering Group of the CND in September 2008, in Trnava, and during the fifth meeting of the Steering Group of the CND in December 2008, in Trnava. Comments were notified and additional information was provided especially related to the situation in, for example, Czech Republic, Slovak Republic, Slovenia, France and some other countries, which were incorporated in a revised version of the report by the Work Package 6 Manager, Mr. Sergio Vidachea, and a final quality review was implemented by the CND Co-ordinator. As such, the activities within Work Package 6 could be finalised.



Considering **Work Package 2**, “Strategies, Policies and Funding, Project Management and Planning, and Cost Aspects”, a first report relating to Work Package 2, “Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear installations”, had been finalised in March 2006.

In a meeting in June 2008, in Trnava, Mr. Josef Blazek and Mr. Marko Novak of DECOM a.s. had presented a first draft of a second Work Package 2 report “Integrated Management and Project Management and Planning of Decommissioning”. In an extensive and detailed discussion, Mr. Josef Blazek, Mr. Marko Novak and Work Package 2 Manager, Mr. Vladimir Daniska, of DECOM a.s. and the CND Co-ordinator had gone through the prepared document. Comments were given and it was concluded that this first draft was an excellent basis for a final report relating to the subject. Mr. Josef Blazek and Mr. Marko Novak agreed to include the comments as discussed and send a revised version to the CND Co-ordinator for a first quality review before the document would be discussed in the fourth meeting of the Steering Group of the CND.

Mr. Josef Blazek and Mr. Marko Novak of DECOM a.s. presented the revised and preliminary quality reviewed version of the report on “Integrated Management and Project Management and Planning of Decommissioning” at that fourth meeting of the Steering Group of the CND in September 2008, in Trnava. After extensive and detailed discussions some comments were notified and Mr. Josef Blazek and Mr. Marko Novak agreed to include these comments as discussed and sent the revised version of the document to the Co-ordinator for quality review.

Mr. Josef Blazek and Mr. Marko Novak of DECOM a.s. presented this revised and quality reviewed version to the participants in the fifth meeting of the Steering Group of the CND in December 2008, in Trnava. Some minor additional comments were notified, and Mr. Josef Blazek and Mr. Marko Novak agreed to include these comments as discussed and send the final version of the document to the CND Co-ordinator for final quality review. All participants agreed that as such the activities relating to this part of the Work Package 2 activities could be finalised.

A third Work Package 2 report on “Cost Aspects of Decommissioning” had been prepared by the Work Package 2 Manager, Mr. Vladimir Daniska. The “Table of Content” for the report was presented and discussed during the fourth meeting of the Steering Group of the CND in September 2008, in Trnava.

A draft version of the third Work Package 2 report on “Cost Aspects of Decommissioning” was presented by Mr. Vladimir Daniska during the fifth meeting of the Steering Group of the CND in December 2008, in Trnava. In an extensive and detailed discussion, the participants in the meeting went through the document. They agreed that the document had a very specialised character. Some specific subsections still had to be further completed but Work Package 2 Manager, Mr. Vladimir Daniska, confirmed that he would make his best effort to finalise the revised version of the report before the end of the EC-CND project (31 December 2008) and send it to the CND Co-ordinator for final quality review. It was recognised, however, that finalising the related report before the end of the EC-CND project (31 December 2008) would be a great challenge. Anyhow, the Work Package 4 Manager, Mr. Vladimir Daniska promised that additional work would be implemented based on his own resources, if necessary, and the CND Co-ordinator also confirmed that he would implement the final quality review of the document based on his own resources, if necessary. As a result, the participants in the fifth meeting of the Steering Group agreed with the proposed schedule for finalising the activities relating to this part of the Work Package 2.

Based on these commitments, finally a well balanced comprehensive document could be presented.

The activities within **Work Package 7** had suffered from a lack of interest from companies and institutions to provide data relating to decontamination and decommissioning activities in the structure of the EC-DB-NET2 database on costs and tools. In order to improve the added value of the activities within Work Package 7, the Manager of Work Package 7, Mr. Alexander Schenk, had agreed to derive a benchmark exercise from various sources and invite companies and institutions to comment on the

benchmark, and provide additional documents relating to dismantling and decontamination techniques in the way they would feel comfortable with.

For professional reasons, the Work Package 7 Manager, Mr. Alexander Schenk, had not been able to attend the fourth and the fifth meeting of the Steering Group of the CND, but he had promised that he would prepare his final report relating to the activities in Work Package 7 in due time, i.e., before the end of the EC-CND project (31 December 2008).

At the fifth meeting of the (extended) Steering Group of the CND, the CND Co-ordinator confirmed that he would implement the final quality review of the final report relating to the Work Package 7 activities based on his own resources, if necessary. As a result, the CND Co-ordinator was given the mandate to finalise the activities relating to Work Package 7 to his best effort. After another reminder, Work Package 7 Manager, Mr. Alexander Schenk could send his report to the CND Co-ordinator for final quality review.

Based on this report, the CND Co-ordinator decided to prepare a final report based on information that could be made available from a co-operative work of the Work Package 7 Manager and other active members of the CND with the EUNDETRAF project. Additional dedicated information could be collected from the activities developed in the area of decommissioning costs.

As a result, a report was developed providing a list with basic review of dismantling and decontamination techniques as well as aspects of implementation, parameters and safety aspects of dismantling and decontamination techniques in decommissioning costing. In addition, the organisation of dismantling and decontamination techniques in databases, implementation of dismantling and decontamination techniques in the structure of the ‘Proposed Standardised List of Items for Costing Purposes’ (PSL) and the selection of dismantling and decontamination techniques for calculation in decommissioning costing was discussed.

In general, the document represents an overview of the state-of-the-art in the area based on different documents to which participants of the Co-ordination Network on Decommissioning of Nuclear Installations (CND) have contributed in a substantial way.

As a summary, the final reports relating to the activities developed within the 4 years’ period of the Contract for the EC Co-ordination Network on Decommissioning of Nuclear Installations included more than 1500 pages. The fourth and last year of the Contract had been very fruitful, therefore. Especially the developments within Work Package 4 should be highlighted, with the creation of *EURSSEM*.

## **1.2 Management Activity**

### **1.2.1 Management activities during the first working year**

In addition to the management tasks relating to the development of the CND website as indicated in Section 1.1.1, the following activities had been developed during the first working year:

- First meeting of the CND Steering Group on February 10, 2005 in Baden (Switzerland).
- Participation in the KONTEC 2005 Conference on April 20-22, 2005 in Berlin (Germany). Participation in a Poster Session and creating interest in the activities of the CND.
- Meeting with IAEA on June 6, 2005, in Wien (Austria) in order to discuss the participation of the IAEA within the CND.
- Meeting at the Belgian Ministry of Economic Affairs on August 18, 2005 in Brussels (Belgium) discussing the questionnaire relating to the common project with DG TREN “Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations” within the work

area “Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects”.

- Meeting with EC technical, scientific and financial officers on August 18, 2005 in Brussels (Belgium) in order to discuss the progress of work within the CND and the justification for the implementation of the integration of the TND website, the EC CDD information library, the EC database on costs and tools and the EC website on decommissioning.
- Numerous telephone, e-mail and CND website contacts with the subcontractor CORE2 (Greifswald, Germany) during the development of the CND website, avoiding travel and subsistence costs.
- Meeting with EC Directorate General Transport and Energy on October 03-04, 2005 in Luxemburg in order to discuss the participation of DG-TREN within the CND and specifically within the work area “Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects”. Discussion of an interim report relating to the project “Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations”.
- Communications with RWE NUKEM relating to the participation of DG TREN within the working area “Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety”.
- Meeting with UNI Hannover and Forschungszentrum Karlsruhe on November 11, 2005 in Karlsruhe (Germany) in order to discuss the replacement of the delegate of UNI Hannover and the integration of the EC Database on costs and tools in the CND website.
- Meeting with Forschungszentrum Karlsruhe on December 6, 2005 in Karlsruhe (Germany) in order to discuss the organisation of the First General Meeting of the CND, evaluating the meeting room and the computer room in view of training participants in access to and use of the CND website and the EC database on costs and tools.

The major meetings organised under this activity during the first working period have been given in the table below.

<b>Date</b>	<b>Title/subject of meeting</b>	<b>Location</b>	<b>Number of attendees</b>	<b>Website address</b>
10/02/2005	First Meeting of the Steering Group	Baden	10	www.ec-cnd.net
20-22/04/2005	KONTEC 2005 Conference	Berlin	550	
06/06/2005	Participation IAEA in CND	Wien	2	
18/08/2005	Discussion project “Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations”	Brussels	2	
18/08/2005	Progress of work within CND; justification for the implementation of the integration of the TND website, the EC CDD information library, the EC database on costs and tools and the EC website on decommissioning	Brussels	3	www.ec-cnd.net
03-04/10/2005	Participation of DG TREN in CND	Luxemburg	4	
11/11/2005	Change of UNI Hannover delegate within the Steering Group of the CND; integrated EC CND website	Karlsruhe	6	
06/12/2005	Organisation First General Meeting of the CND on January 26-27, 2006 in Karlsruhe	Karlsruhe	2	

Specific documents relating to these activities are referred to in Section 2, List of deliverables, and are collected on a CD-ROM in annex to this final report.

The First General Meeting with interested organisations of the CND was planned to be organised before the end of the year 2005. The objectives of the meeting had been defined to be creating interest in the CND activities, proposing the terms of reference that were developed by the members of the Steering Group,

asking for other interesting items that could be developed in future, and presenting and distributing the Associated Membership Agreements for signing.

The analyses carried out in order to define the required actions for the implementation of the requested integration of the operational website of the Thematic Network on Decommissioning of Nuclear Installations (TND), the database on technical and cost aspects of decommissioning (EC-DB-NET2), the EC website on decommissioning (EU-DECOM) and the information library (EC-CDD) had required much more work and time than expected, however. In addition, the discussions relating to the justification of selecting the company CORE2 as a subcontractor for providing the required services lasted until the beginning of October 2005, enabling the subcontract relating to the integration activities to be signed on October 11, 2005.

Due to the intensive development work, the overall delay could be reduced to about one month and would be recovered in the year 2006.

At the end of the year 2005/beginning of the year 2006, some specific organisational measures had to be taken:

- As a result of internal reorganisations within ENRESA, Mr. Sergio Vidaechea would replace Mr. Juan Luis Santiago as the ENRESA representative in the Steering Group and as the responsible manager for Work Package 6.
- As a result of internal reorganisations within SOGIN, Mr. Elio Grossi would replace Mr. Luigi Brusa as the SOGIN representative in the Steering Group and as a supporting manager in Work Package 4.
- As Mr. Ralf Versemann left the University of Hannover, Mr. Alexander Schenk was going to be nominated to be the new UNI Hannover representative in the Steering Group and the responsible manager for Work Package 7.
- For personal reasons, Mr. Dusan Majersky could no longer take responsibility as a manager for Work Package 3. Mr. Luis Valencia (Forschungszentrum Karlsruhe) had offered to take over his activities. AllDeco would continue to provide support as a supporting manager for Work Packages 3, 5 and 7. The budget figures provided in the contract were going to be reviewed based on the effectively implemented activities.

### **1.2.2 Management activities during the second working year**

After implementation of the activities in order to incorporate valuable information from the former CDD and EU-DECOM websites into the CND website, and after within the CND website a link had been established to the database on technical and cost aspects of decommissioning (EC-DB-NET2), the next step would be a full integration of the CND website and the database on costs and tools EC-DB-NET2 on the same platform. This could be implemented easier and less expensive if all components would be available on the same server. In addition, the documents stored in the open public area under the section "About decommissioning and decommissioning activities in Europe", including the information considered in the EU-DECOM website, should be made accessible for updating by the owner of the information. Other elements for improving the use of the CND website might be considered as well. A further evaluation would be based on additional comments gathered during the presentation of the CND website at the First General Meeting of the CND that would be held from 26-27 January 2006 in Karlsruhe.

Up to that moment, the proposed full integration of the CND website and the EC database on technical and cost aspects of decommissioning (EC-DB-NET2) had not been implemented as it required specific decisions.

In addition to the management tasks relating to the development of the CND website as indicated in the foregoing sections, the following activities had been developed:

- Second Meeting of the CND Steering Group on January 12-13, 2006 in Karlsruhe (Germany).

- Letter to SOGIN p.a. relating to the “Participation of Società Gestione Impianti Nucleari p.a. in the ‘Co-ordination Network on Decommissioning of Nuclear Installations’” on January 19, 2006.
- Letter to EWN GmbH relating to the “Participation of Energiewerke Nord GmbH in the ‘Co-ordination Network on Decommissioning of Nuclear Installations’” on January 19, 2006.
- Meeting with EC Directorate General Transport and Energy on January 24, 2006 in Luxemburg in order to discuss the participation of DG-TREN within the CND and specifically within the work area “Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects”. Discussion of the final report relating to the project “Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations”.
- First General Meeting of the CND on January 26-27, 2006 in Karlsruhe (Germany).
- Participation in IAEA Meeting on Dispositioning of Materials from Decommissioning, Vienna, 27 February 2006 – 3 March 2006.
- Participation in IAEA Meeting on Design Features and Requirements to Minimize Operational and Decommissioning Waste Generation of Nuclear Facilities, Vienna, 13-17 March 2006.
- Participation in the Regional Workshop on Cost Estimates for Decommissioning on May 29 – June 2, 2006 in Belgrade (Serbia and Montenegro).
- Participation in the BHR Conference on Water Jetting on September 13-15, 2006 in Gdansk (Poland), presenting the idea, the scope and the objectives of Work Package 7: Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training.
- Participation in the Grosse Schweisstechnische Tagung des DVS on September 20-22, 2006 in Aachen (Germany), presenting the idea, the scope and the objectives of Work Package 7: Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training.
- Participation in the International Conference on Cutting Technologies (ICCT) on October 10-11, 2006 in Hannover (Germany), presenting the idea, the scope and the objectives of Work Package 7: Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training.
- Participation in the 2. Symposium "Stilllegung und Rückbau kerntechnischer Anlagen" des TÜV Nord Ensys (2<sup>nd</sup> symposium on the decommissioning of nuclear facilities) on November 8-9, 2006 in Hannover (Germany), presenting the idea, the scope and the objectives of Work Package 7: Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training.
- Participation in the EUNDETRAF theoretical/practical seminar on November 6-17, 2006 in Piacenza (Italy), presenting the idea, the scope and the objectives of Work Package 7: Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training.
- Participation in the Co-ordinated Research Project on Innovative and Adaptive Technologies in Decommissioning of Nuclear Facilities Research Coordination Meeting on November 13-17, 2006 in Keswick (England).
- Participation in the International Conference on Lessons Learned from the Decommissioning of Nuclear Facilities and the Safe Termination of Nuclear Activities on December 11-15, 2006 in Athens (Greece).
- E-mail to all Members of the Steering Group relating to the “EC-CND Actual Status” on September 5, 2006.
- E-mail to all Members of the Steering Group relating to the “EC-CND Actual Status” on September 27, 2006 (Reminder).
- Numerous telephone, e-mail and CND website contacts with the subcontractor CORE2 (Greifswald, Germany) during the further development and maintenance of the CND website, avoiding travel and subsistence costs.
- Communications with RWE NUKEM relating to the participation of Members of the Steering Group within the working area “Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety”.

The major meetings organised under this activity during the second working period have been given in the table below.

Date	Title/subject of meeting	Location	Number of attendees	Website address
12-13/01/2006	Second Meeting of the Steering Group	Karlsruhe	11	www.ec-cnd.net
24/01/2006	Discussion project "Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations"	Luxemburg	4	
26-27/01/2006	First General Meeting of the CND	Karlsruhe	30	www.ec-cnd.net
27/02-03/03/2006	IAEA Meeting on Dispositioning of Materials from Decommissioning	Vienna	5	
13-17/03/2006	IAEA Meeting on Design Features and Requirements to Minimize Operational and Decommissioning Waste Generation of Nuclear Facilities	Vienna	8	
29/05-02/06/2006	Regional Workshop on Cost Estimates for Decommissioning	Belgrade		
13-15/09/2006	BHR Conference on Water Jetting	Gdansk		
20-22/09/2006	Grosse Schweisstechische Tagung des DVS	Aachen		
10-11/10/2006	International Conference on Cutting Technologies (ICCT)	Hannover		
8-9/11/2006	2. Symposium "Stilllegung und Rückbau kerntechnischer Anlagen" des TÜV Nord Ensys (2 <sup>nd</sup> symposium on the decommissioning of nuclear facilities)	Hannover		
06-17/11/2006	EUNDETRAF theoretical/practical seminar	Piacenza		
13-17/11/2006	Co-ordinated Research Project on Innovative and Adaptive Technologies in Decommissioning of Nuclear Facilities Research Coordination Meeting	Keswick		
11-15/12/2006	International Conference on Lessons Learned from the Decommissioning of Nuclear Facilities and the Safe Termination of Nuclear Activities	Athens		

Specific documents relating to these activities are referred to in Section 2, List of deliverables, and are collected on a CD-ROM in annex to this final report.

Some specific organisational measures had to be taken or specific status notified:

- As a result of internal reorganisations within ENRESA, Mr. Sergio Vidachea had replaced Mr. Juan Luis Santiago as the ENRESA representative in the Steering Group and as the responsible manager for Work Package 6.
- As a result of internal reorganisations within SOGIN, Mr. Elio Grossi had replaced Mr. Luigi Brusa as the SOGIN representative in the Steering Group and as a supporting manager in Work Package 4.
- As Mr. Ralf Verseemann had left the University of Hannover, Mr. Alexander Schenk had been nominated as the new UNI Hannover representative in the Steering Group and the responsible manager for Work Package 7.
- For personal reasons, Mr. Dusan Majersky could no longer take responsibility as a manager for Work Package 3. Mr. Luis Valencia (Forschungszentrum Karlsruhe) had taken over his activities. AllDeco would continue to provide support as a supporting manager for Work Packages 3, 5 and 7.

The budget figures provided in the contract were going to be reviewed based on the effectively implemented activities.

- It had been notified that the legal name of the university of Hannover had changed (in the context of the festivities regarding its 175<sup>th</sup> anniversary) from “Universität Hannover” to “Gottfried Wilhelm Leibniz Universität Hannover” (new shortname was “LUH”).
- It had been notified that RWE NUKEM had undergone some structural changes - ownership change and consequent some administrative adjustment. The name had been changed from RWE NUKEM Ltd to NUKEM Limited, NUKEM Limited keeping the responsibilities of RWE NUKEM Ltd and Mr. Anisur Rahman keeping to be the responsible person of NUKEM Limited in the Steering Group and keeping to be the Manager of Work Package 5.
- It was notified that DECOM Slovakia continued to exist, but that except for the General Manager and his secretary, all other personnel had moved to the company DECONTA, a.s., being a daughter company of VUJE. The former DECOM Slovakia personnel performed some duties for DECOM Slovakia also after joining the DECONTA. Both organisations were still in a kind of transition period. The resulting consequences for the participation within the CND would have to be discussed in a next meeting of the Steering Group.
- It was notified that no answer had been obtained relating to the letter sent to SOGIN p.a. relating to the “Participation of Società Gestione Impianti Nucleari p.a. in the ‘Co-ordination Network on Decommissioning of Nuclear Installations’” on January 19, 2006. The resulting consequences for the participation within the CND would have to be discussed in a next meeting of the Steering Group.
- It was notified that no answer had been obtained relating to the letter sent to EWN GmbH relating to the “Participation of Energiewerke Nord GmbH in the ‘Co-ordination Network on Decommissioning of Nuclear Installations’” on January 19, 2006. The resulting consequences for the participation within the CND would have to be discussed in a next meeting of the Steering Group.
- It was notified that no sufficient response had been obtained on the e-mail sent to all Members of the Steering Group relating to the “EC-CND Actual Status” on September 5, 2006 and on September 27, 2006 (Reminder) in order to enable the CND Co-ordinator to start preparing the second annual report relating to the activities within the CND that was due 45 days after the end of the second working year, i.e., on February 15, 2007.

Considering the foregoing status, a meeting with the technical and legal representatives of Directorate RTD of the European Commission was planned to be held on January 26, 2007 in order for the European Commission to take notice of the available information and discuss the remaining options.

### **1.2.3 Management activities during the third working year**

Up to the middle of January 2007, only three of the required reports relating to the progress of work within the Work Packages had been received that would enable the CND Co-ordinator to prepare an adequate status report at the end of the second working year of the Co-ordination Network as well as decisions to be taken about organisation and implementation of the remaining work.

As a result, on January 26, 2007, the CND Co-ordinator had a meeting in Brussels with the technical and legal representatives of Directorate RTD of the European Commission, discussing the number and the quality of the received reports and the fact that the CND Co-ordinator would not be able to evaluate the progress of work within the CND and to prepare the second annual report in compliance with the contractual conditions.

The technical and legal representatives of Directorate RTD of the European Commission took notice of the available information and stipulated that two options remained open:

- First option: suspension of the contract until the required information relating to acceptable progress had been delivered and further effective commitments had been obtained from all or a reduced number of partners to bring the project to the end as described in the contract (see Article 2.5, Suspension and prolongation of the project, in Annex II to the Contract). Some of the current partners might leave the contract, while their role might be taken over by the remaining partners.

During such a period of suspension, which would be limited in time, no costs could be charged to the project, however.

- Second option: stop the project (see Article 2.16, Termination for breach of contract and irregularity).

The technical and legal representatives of Directorate RTD of the European Commission requested the CND Co-ordinator, who was acting on behalf of the group, to notify the content of the discussions to the contractual members of the CND in a registered letter.

Considering the discussions with the technical and legal representatives of Directorate RTD of the European Commission, all Work Package managers and supporting managers were urgently requested to provide the progress of work in the respective Work Packages in a report as well as their cost statements for the second working year of the CND.

In addition, all Work Package managers and supporting managers were requested to develop ideas relating to a reorganisation of the project, including new responsibilities, new budget distributions and definition of how the planned activities could be implemented during the remaining period of one year for the contract.

The issues were discussed in a meeting of the Steering Group that was held on April 2-3, 2007 at the Forschungszentrum in Karlsruhe. The Technical Representative of the Directorate RTD of the European Commission attended the meeting.

As a first result of the meeting, the CND Co-ordinator received the necessary information to prepare the 2<sup>nd</sup> Annual Report for the Co-ordination Network on Decommissioning and send it to the EC Scientific Officer responsible for the follow-up of the activities within the EC-CND.

In addition, the further participation of Energiewerke Nord GmbH in the EC-CND was discussed, which had in practice been limited to signing the “FORM A – ACCESSION TO THE CONTRACT” and the Consortium Agreement relating to the CND. It was further unclear who was the EWN representative in the Steering Group. During the 2<sup>nd</sup> meeting of the Steering Group, the CND Co-ordinator had been asked to write an official letter to EWN with the following questions:

- Would Energiewerke Nord GmbH continue its co-operation within the Co-ordination Network on Decommissioning and manage and/or support the management of the work in the Work Packages as defined in the contract with the European Commission?
- Who was or would be the representative of Energiewerke Nord GmbH in the Steering Group?

A written answer to this letter was received, indicating that the EWN was fully aware about the unsatisfactory situation in the project and that EWN had not been able to perform the support as planned. The reason for this was that EWN had been obliged to take over several “old federal liabilities” in the decommissioning sector in Germany. This had resulted in a lack of capabilities to perform the required work for the EC-CND project. As the situation for EWN would not change in the near future, EWN preferred to stop the contract. As EWN had not consumed any money in connection with the project, any advance payments would be reimbursed.

The Steering Group accepted the withdrawal of EWN from the EC-CND contract and requested the CND Co-ordinator to implement the necessary actions:

- Inform the EC Scientific Officer by letter about the withdrawal of EWN from the project and send a copy of this letter to EWN.
- Prepare an amendment to the contract for the EC-CND to be sent to the EC Scientific Officer as indicated in the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”.
- Send a letter to EWN accepting the withdrawal of EWN from the contract for the EC-CND and requesting reimbursement of the advance payment of 8’050 €



The further participation of Società Gestione Impianti Nucleari p.a. (SOGIN) was discussed as well, which had been limited to signing the “FORM A – ACCESSION TO THE CONTRACT” and the Consortium Agreement relating to the CND, and to attending the First Meeting of the Steering Group. It was further also unclear who was the SOGIN representative in the Steering Group. During the 2<sup>nd</sup> meeting of the Steering Group, the CND Co-ordinator had been asked to write an official letter to SOGIN with the following questions:

- Would Società Gestione Impianti Nucleari p.a. continue its co-operation within the Co-ordination Network on Decommissioning and manage and/or support the management of the work in the Work Packages as defined in the contract with the European Commission?
- Who was or would be the representative of Società Gestione Impianti Nucleari p.a. in the Steering Group?

The CND Co-ordinator had never received an answer to this letter. As a result, the Steering Group considered that SOGIN had not fulfilled the tasks and obligations agreed upon in the Consortium Agreement and in the contract relating to the EC-CND and decided to remove SOGIN p.a. from the list of partners in the contract for the EC-CND and requested the CND Co-ordinator to implement the necessary actions:

- Inform the EC Scientific Officer by letter about the withdrawal of SOGIN from the project and send a copy of this letter to SOGIN.
- Prepare an amendment to the contract for the EC-CND to be sent to the EC Scientific Officer as indicated in the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”.
- Send a letter to SOGIN accepting the withdrawal of SOGIN from the contract for the EC-CND without any request for reimbursement of any advance payment as SOGIN had never provided any bank detail that would enable an advance payment to be transferred.

Also the further participation of AllDeco in the EC-CND was discussed. In an e-mail to the Co-ordinator, Mr. Dusan Majersky of AllDeco had mentioned that, while AllDeco was a small company and quite non-comparable to other participants in the CND management, AllDeco had different problems and priorities. AllDeco was oriented towards applied decommissioning business, research and development. They recognised that theoretical or paper-work was also needed and necessary in decommissioning. In most cases, AllDeco used available analysis, assessments, recommendations etc. A different character of the activities also required a different character and orientation of the employees and vice-versa, however.

Moreover, as had been mentioned during the 2<sup>nd</sup> meeting of the Steering Group, for personal reasons, Mr. Dusan Majersky could no longer take responsibility as a manager for Work Package 3. Mr. Luis Valencia (Forschungszentrum Karlsruhe) had offered to take over his activities.

AllDeco recognised that only minimal activities had been developed in Work Package 7 and that the contacts with other supporting managers of Work Package 7 had been also marginal. After initial uncertainties and also disagreement with goals of Work Package 5, AllDeco considered that they had supplied a non-negligible contribution to this Work Package. AllDeco had participated in specific activities of the EC-CND that were organised in the beginning of 2006, for example the 2<sup>nd</sup> Steering Group Meeting and the First General Meeting. AllDeco confirmed that they had obtained the advance payment (7'400 €) for the contract and that they had introduced a cost statement of 3'000 € relating to their activities in the first year 2005 of the contract, and AllDeco could agree with a re-allocation of the financial means initially intended for AllDeco in the contract to other active participants of the CND project. However, the e-mail with the related information did not give a clear view about the further participation of AllDeco in the EC-CND contract. As a result, the Steering Group requested the CND Co-ordinator to contact AllDeco to clarify the following issues:

- Would AllDeco continue its co-operation within the Co-ordination Network on Decommissioning and support the management of the work in the Work Packages as defined in the contract with the European Commission?

- If AllDeco would continue its co-operation within the CND, would AllDeco prepare a cost statement for its activities during the year 2006, including a “Form C – Financial Statements”, and a “Justification of the resources deployed”?
- If AllDeco would not continue its co-operation within the CND starting from the beginning of the year 2007, would AllDeco still prepare a cost statement for its activities during the year 2006, including a “Form C – Financial Statements”, and a “Justification of the resources deployed”?

If AllDeco would not continue its co-operation within the CND starting from the beginning of the year 2007, the Steering Group decided that in that case it would accept the withdrawal of AllDeco from the EC-CND contract and request the CND Co-ordinator to implement the necessary actions:

- Inform the EC Scientific Officer by letter about the withdrawal of AllDeco from the project and send a copy of this letter to AllDeco.
- Prepare an amendment to the contract for the EC-CND to be sent to the EC Scientific Officer as indicated in the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”.
- Send a letter to AllDeco accepting the withdrawal of AllDeco from the contract for the EC-CND and requesting reimbursement of the advance payment of 7’400 € reduced with the incurred costs for the year 2005 (3’000 €) and the possible costs for the AllDeco activities performed in the year 2006, to be confirmed by a “Form C – Financial Statements”, and a “Justification of the resources deployed”.

The Steering Group also decided to take the required measures in order to ensure that the expected results in the various Work Packages would be achieved, including taking over the responsibilities of EWN, SOGIN and AllDeco in the contract, redistribution of the work load and reorganisation of the financial means.

Considering the foregoing issues relating to the organisation of the Co-ordination Network on Decommissioning and the impact on the progress of work in the various Work Packages, the Steering Group agreed on the following conclusions:

- The progress of work within Work Package 1 was in line with the planned schedule.
- The first part of Work Package 2 relating to the aspects Strategies, Policies and Funding had been finalised. The second part relating to Programme Management, Project Management and Costs had incurred a delay of about one year, which would be difficult to recover. Therefore, it was recommended to ask the EC for an extension of the time schedule relating to the activities within Work Package 2 by one year, without any request for additional financial means, however.
- Considering the time schedules relating to activities within the co-operating working groups of the OECD/NEA WPDD and CPD, it was recommended to ask the EC for an extension of the time schedule relating to the activities within Work Package 3 by one year, without any request for additional financial means, however.
- In general, it was considered that the activities relating to Work Package 4 would require an additional year. Therefore, it was recommended to ask the EC for an extension of the time schedule relating to the activities within Work Package 4 by one year, without any request for additional financial means, however.
- The progress of work within Work Package 5 was considered to have a limited delay of some six months relating to the planned schedule. The completed final report should be ready by the end of June 2008.
- In general, it was considered that it would be difficult to finalise the activities relating to Work Package 6 by the end of 2007. Considering the additional activities required to collect the necessary data it was considered that an additional year would be necessary. Therefore, it was recommended to ask the EC for an extension of the time schedule relating to the activities within Work Package 6 by one year, without any request for additional financial means, however.
- The activities within Work Package 7 suffered from a lack of interest from companies and institutions to provide data relating to D&D activities in the structure of the EC-DB-NET2 database on costs and tools. In order to improve the added value of the activities within Work Package 7, it

was decided to derive a benchmark exercise from various sources and invite companies and institutions to comment on the benchmark, and provide additional documents relating to dismantling and decontamination techniques in the way they feel comfortable with. This newly defined objective within Work Package 7 would certainly benefit from an extension of the time schedule for the CND project by one year, without any request for additional financial means, however.

The delays in several Work Packages were considered to be due to the difficulties encountered to get information and have adequate support from Associated Members of the CND in the specific Work Packages, but certainly also to the lack of support from and the expected withdrawal of three partners in the contract for the CND, creating additional tasks for the 8 remaining partners that could only be implemented in series with the planned tasks.

On the other hand, the activities within the various Work Packages were expected to provide documents that might have positive impacts on the state-of-the-art in decommissioning and decontamination.

As a result of the discussions, the responsibilities for the Work Packages were reviewed and accepted as follows:

- |  |  |
|--|--|
| • Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects.   | <u>V. Daniska</u> , L. Valencia,<br>L. Teunckens               |
| • Material Management and Characterisation Techniques, and Recycle and Reuse of Materials.   | <u>L. Valencia</u> , J. Podlaha,<br>S. Vidaechea, L. Teunckens |
| • Site Characterisation, Remediation and Reuse.  | <u>L. Van Velzen</u> , A. Rahman,<br>L. Teunckens              |
| • Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety.                    | <u>A. Rahman</u> , F. Van Gemert,<br>L. Teunckens              |
| • Environmental and Socio-economic Aspects, and Public Perception, Public Relation.  | <u>S. Vidaechea</u> , R. Jansma,<br>J. Pritsky, L. Teunckens   |
| • Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training. | <u>A. Schenk</u> , L. Valencia,<br>L. Teunckens                |
| • Co-operation and relations with third parties and international organisations.   | <u>Co-ordinator</u> , all                                      |

Considering that it was explicitly the aim of the Steering Group to bring the project to a good end, the CND Co-ordinator was recommended to ask the EC for an extension of the time schedule relating to the CND project by one year, without any request for additional financial means, however.

As a result, the CND Co-ordinator prepared a file with the necessary information in order to extend the contractual period for the EC-CND Project “Co-ordination Network on Decommissioning of Nuclear Installations” (Contract No. FI6O-508855) till the end of the year 2008; to terminate the participation of EWN, SOGIN and AllDeco in the Contract from August 1, 2007; and to modify Annex I “Description of work” in order to implement the redistribution of work.

At the same time, the CND Co-ordinator agreed with EWN and AllDeco to terminate their participation in the CND Contract starting from August 1, 2007 and informed SOGIN about the decision of the Steering Group to remove SOGIN from the list of Contractors starting from August 1, 2007 as well. In addition, the CND Co-ordinator obtained an agreement with EWN and AllDeco about refunding the advance payment (100 % or 8’050 € for EWN, and the non-used part or 4’400 € for AllDeco).

The CND Co-ordinator could send the requested file with the agreements with EWN, AllDeco and SOGIN to the EC on July 26, 2007, and received on September 6, 2007 the confirmation that the EC agreed with all elements of the proposed changes to the Contract.

In addition, the agreed refunding of the advance payments from EWN and AllDeco had been implemented.

This meant that the Steering Group obtained the green light from the EC to continue and finalise the activities as defined in the Contract in accordance to the revised organisation and planning as agreed during the Steering Group meeting on April 2-3, 2007 and notified in the minutes of the meeting.

In addition to the management tasks relating to the reorganisation of the EC-CND, the following activities had been developed:

- Letter to the Partners in the Steering Group of the Co-ordination Network on Decommissioning relating to the “Actual Status” of the Project after agreement of the EC with the extension of the duration of the contract on September 28, 2007.
- Numerous telephone, e-mail and CND website contacts of the CND Co-ordinator with the subcontractor CORE2 (Greifswald, Germany) during the further development and maintenance of the CND website, avoiding travel and subsistence costs.
- Several responses of the CND Co-ordinator to organisations interested in participating in the activities of the CND.
- Communications with RWE NUKEM relating to the participation of Members of the Steering Group within the working area “Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety”.

The major meetings organised under this activity during the third working period have been given in the table below.

<b>Date</b>	<b>Title/subject of meeting</b>	<b>Location</b>	<b>Number of attendees</b>	<b>Website address</b>
26/01/2007	Meeting of CND Co-ordinator with the technical and legal representatives of Directorate RTD of the European Commission discussing the progress of work within the CND and the preparation of the second annual report in compliance with the contractual condition	Brussels	3	
2-3/04/2007	Third Meeting of the Steering Group	Karlsruhe	8	www.ec-cnd.net
2-5/05/2007	IAEA Expert Mission to Review the Revised Draft Cost Estimate Methodology for Decommissioning of Nuclear Power Plants in Russia	Moscow		
21-24/05/2007	IAEA Expert Mission to Review of the Draft Decommissioning Plan for Units 1, 2 and 3 of the Chernobyl NPP	Kiev		

Specific documents relating to the activities of the CND in the year 2007 are referred to in Section 2, List of Deliverables, and are gathered on a CD-ROM in annex to this final report.

Some specific organisational measures had to be taken or specific status notified:

- As a result of internal reorganisations it was expected that the activities of DECOM Slovakia would be transferred to a new company DECONTA in Slovak Republic. To that extent, some of the employees of DECOM Slovakia had already signed a contract with this new company. DECOM Slovakia continued to exist, however, and as a result of a new decision, DECOM

Slovakia continued its activities and the employees returned to their former functions. There was therefore no need to change the participation of DECOM Slovakia in the contract for the EC-CND.

- In a letter to the CND Co-ordinator on August 23, 2006, RWE NUKEM Ltd announced that the company name had changed and had been formally registered as NUKEM Limited, all other details and addresses remaining the same. According to item 6, CHANGE OF NAME AND LEGAL DETAILS OF A CONTRACTOR, of the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”, when legal details (such as simply the name or address of a contractor or the change of authorised legal representative) are changed, no formal contract amendment was needed.
- In a letter to the CND Co-ordinator on September 18, 2006, Universität Hannover announced that the company name had changed and had been formally registered as Gottfried Wilhelm Leibniz Universität Hannover, all other details and addresses remaining the same. According to item 6, CHANGE OF NAME AND LEGAL DETAILS OF A CONTRACTOR, of the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”, when legal details (such as simply the name or address of a contractor or the change of authorised legal representative) are changed, no formal contract amendment was needed.

#### 1.2.4 Management activities during the fourth working year

Following the agreement of the EC to change the duration of the contract for the CND to 48 months, following the review of the responsibilities for the various Work Packages as indicated in Section 1.1.3, “Activities implemented and status of the Co-ordination Network at the end of the third working year of the Co-ordination Network”, and following the decision that more specialised workshops should be held with the partners in the Work Packages and other members of the Steering Group in case they showed interest (as a result of the reduced/limited support that could be obtained from the Associated Members, and the CND as such having evolved from an open forum to a more limited “club” of interested partners), the following ad hoc meetings have been organised:

- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the draft report relating to the activities of Work Package 5 on April 28-29, 2008 in Warrington, United Kingdom.
- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the development of the report relating to the activities of Work Package 4 on May 13-15, 2008 in Arnhem, The Netherlands.
- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4 on June 6, 2008 in Baden, Switzerland.
- Second ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4 on June 24-25, 2008 in Trnava, Slovak Republic.
- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Package 4 on July 29, 2008 in Arnhem, The Netherlands.
- Fourth meeting of the (extended) Steering Group of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Packages 2, 3, 4 and 6 on September 8-11, 2008 in Trnava, Slovak Republic.
- Fifth meeting of the (extended) Steering Group of the EC – Co-ordination Network on Decommissioning of Nuclear Installations (to discuss the final reports relating to the activities in the various Work Packages) on December 8-10, 2008 in Trnava, Slovak Republic.

In addition, it was discussed that a one week seminar would be organised in Madrid, in the offices of ENRESA, to discuss specifically the issues considered in the development of the report for Work Package 4, “Site Characterisation, Remediation and Reuse”, i.e., the *European Radiation Survey and Site Execution Manual (EURSSEM)*. However, after the meeting on 29 July 2008 in Arnhem, where the drafts of sections 2 and 4 for the Work Package 4 report had been discussed, Mr. Leo Van Velzen and the CND Co-ordinator had evaluated that the Work Package 4 report would be much more

important than expected and that the progress of work was such that organising a seminar with broad participation in September 2008 was too early. Therefore, it was decided that this seminar should be organised in the second week of November 2008. However, due to a lack of interest from the invited people and due to illness of a remaining interested person, the seminar had to be cancelled as a whole and it had to be decided to limit the last meeting of the EC-CND to a co-ordination meeting, mainly to discuss the final reports relating to most of the Work Packages and other outstanding issues relating to the finalisation of the project.

In addition to the management activities relating to the organisation of the ad hoc meetings, the following activities had been developed:

- Numerous telephone and e-mail contacts of the CND Co-ordinator with the Managers of the Work Packages relating to the organisation of the ad hoc meetings in Warrington (United Kingdom), Anhem (The Netherlands), Baden (Switzerland), Trnava (Slovak Republic).
- Participation in the IAEA project ‘Demonstration of Safety in Decommissioning of Nuclear Installations’ (DeSa), developing the final contributions to the Test Case for Nuclear Power Plants with a practical example of using the structure of the “Proposed List of Items for Costing Purposes” (PSL) for the evaluation of safety related parameters in decommissioning (January 2008).
- Participation in two meetings of the IAEA project ‘Safran’ for the safety assessment of decommissioning activities (March and April, 2008) with the recommendation for a structure of decommissioning activities that is in accordance with the structure of the “Proposed List of Items for Costing Purposes” (PSL).
- Participation in the IAEA project ‘Cost Estimate for Research Reactors’ with the development of the robust costing model for research reactors based on the structure of the “Proposed List of Items for Costing Purposes” (PSL) including the development of the simplified and robust cost calculation methodology for preliminary cost estimation levels. The activities of the project will continue until 2011.
- Participation in the OECD/NEA Decommissioning Cost Estimation Group (within the Working Party on Decommissioning and Dismantling - WPDD), with a presentation of the experience in implementing the structure of the “Proposed List of Items for Costing Purposes” (PSL), proposals for upgrading of the PSL structure, proposals for developing a manual for the PSL structure. The activities of the project will continue until 2011.
- Participation in the IAEA expert mission ‘Review and Analyse Cost Estimates for Decommissioning of the Chernobyl NPP’ in Slavutich Ukraine, September 23-25, 2009, analysing the cost estimate, presenting the structure of the “Proposed List of Items for Costing Purposes” (PSL) and procedures for its implementation in decommissioning costing, encouraging the implementation of the PSL structure and the development of the Russian version of PSL text.
- Participation in the IAEA workshop ‘Cost Estimates for decommissioning of research reactors’, Beijing, China, 20-24 October 2008, presenting international recommendations for decommissioning costing with regard to research reactors including recommendations for using the structure of the “Proposed List of Items for Costing Purposes” (PSL), presentation of the PSL structure, methods of its implementation and current experience of using the PSL structure with a view of encouraging implementation of the PSL structure.
- Participation in the IAEA workshop ‘Cost estimates for decommissioning of nuclear power plants’, Moscow, Russian Federation, 28-31 October 2008, presenting the general aspects of decommissioning costing at the level of the nuclear power plant, including presentation and implementation of the structure of the “Proposed List of Items for Costing Purposes” (PSL), interaction of the PSL structure with other cost structures, experience with the PSL structure and encouraging implementation of the PSL structure.
- Participation in advising the IAEA on ‘Design and Future Activities of the Network of Excellence on Environmental Remediation – ENVIRONET’ from 15 to 17 April 2009, and responding positively to the IAEA to explore the possibility to combine both initiatives ‘ENVIRONET’ and ‘EURSSEM’, the result of the activities developed within CND Work Package 4, Site Characterization, Remediation and Reuse.

- Participation in the IAEA Conference on Environmental Remediation in Astana, Kazakhstan, 18-22 May 2009, presenting the results of the CND Work Package 4 report EURSSEM (European Radiation Survey and Site Execution Manual), a consistent guidance on remediation of radioactively contaminated land.

The major meetings organised under this activity during the fourth working period have been given in the table below.

<b>Date</b>	<b>Title/subject of meeting</b>	<b>Location</b>	<b>Number of attendees</b>	<b>Website address</b>
28-29/04/2008	Ad hoc meeting of the CND to discuss the draft report relating to the activities of Work Package 5	Warrington	7	
13-15/05/2008	Ad hoc meeting of the CND to discuss the development of the report relating to the activities of Work Package 4	Arnhem	3	
06/06/2008	Ad hoc meeting of the CND to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4	Baden	2	
24-25/06/2008	Second ad hoc meeting of the CND to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4	Trnava	8	
29/07/2008	Ad hoc meeting of the CND to discuss the progress of work relating to the activities of Work Package 4	Arnhem		
08-11/09/2008	Fourth meeting of the (extended) Steering Group of the CND to discuss the progress of work relating to the activities of Work Packages 2, 3, 4 and 6	Trnava	11	
08-10/12/2008	Fifth meeting of the (extended) Steering Group of the CND to discuss the final reports relating to the activities in the various Work Packages	Trnava	11	
01/2008	IAEA project 'Demonstration of Safety in Decommissioning of Nuclear Installations' (DeSa),	Vienna		
03/2008, 04/2008	IAEA project 'Safran' for the safety assessment of decommissioning activities	Vienna		
2008-2011	IAEA project 'Cost Estimate for Research Reactors'	Vienna		
2008-2011	OECD/NEA Decommissioning Cost Estimation Group	Paris		
23-25/09/2009	IAEA expert mission 'Review and Analyse Cost Estimates for Decommissioning of the Chernobyl NPP'	Slavutich, Ukraine		
20-24/10/2008	IAEA workshop 'Cost Estimates for decommissioning of research reactors'	Beijing		
28-31/10/2008	IAEA workshop 'Cost estimates for decommissioning of nuclear power plants'	Moscow		
15-17/04/2009	IAEA workshop on 'Design and Future Activities of the Network of Excellence on Environmental Remediation – ENVIRONET'	Vienna		
18-22/05/2009	IAEA Conference on Environmental Remediation	Astana, Kazakhstan		

Specific documents relating to these activities are referred to in Section 2, List of Deliverables, and are gathered on a CD-ROM in annex to this annual report.

In addition to the management tasks relating to the organisation of meetings, following administration activities had been developed:

- Letters on January 16, 2008 to the Partners in the Steering Group of the Co-ordination Network on Decommissioning with a request for information relating to the progress of work in the various Work Packages at the beginning of the year 2008, a request for the Work Package Manager contributions to the Annual Report for the year 2007, and a request to organise the necessary ad hoc meetings in order to collect information and prepare the required reports for the various Work Packages.
- A letter on October 11, 2008 to DECOM a.s. in order to confirm the tasks and the related budget for the additional activities of DECOM a.s. for the reports relating to Work Packages 2, 3 and 4.
- A letter on November 30, 2008 to Nuclear Research Institute Rez plc with a request for the Rez contribution to the Annual Report relating to the CND activities for the year 2008; the Rez Financial Statement for the year 2008 using the Excel file “FORM C - Model of Financial Statement per Activity for a Coordination Action for Infrastructures”; the Rez “Justification of resources deployed during the reporting period for CA”; and an audit certificate from an external auditor, certifying that the Rez costs incurred during the full contractual period of the CND meet the conditions required by the contract, as requested by the European Commission.
- A letter on November 30, 2008 to Forschungszentrum Karlsruhe with a request for the Forschungszentrum Karlsruhe contribution to the Annual Report relating to the CND activities for the year 2008; the Forschungszentrum Karlsruhe Financial Statement for the year 2008 using the Excel file “FORM C - Model of Financial Statement per Activity for a Coordination Action for Infrastructures”; the Forschungszentrum Karlsruhe “Justification of resources deployed during the reporting period for CA”; the reimbursement of 7’150 € to the CND Co-ordinator being the unused part of the advance payment relating to the expected contributions of Forschungszentrum Karlsruhe to the CND activities; and an audit certificate from an external auditor, certifying that the Forschungszentrum Karlsruhe costs incurred during the full contractual period of the CND meet the conditions required by the contract, as requested by the European Commission
- Numerous telephone and e-mail contacts with Forschungszentrum Karlsruhe relating to the Forschungszentrum Karlsruhe contribution to the Annual Report relating to the CND activities for the year 2008; the “Financial Statement for the year 2008”; the “Justification of resources”; and including clarifications and providing witness documents relating to the reimbursement of 7’150 € being the unused part of the advance payment; and the audit certificate from an external auditor.
- A letter on November 30, 2008 to Gottfried Wilhelm Leibniz Universität Hannover with a request for the Gottfried Wilhelm Leibniz Universität Hannover contribution to the Annual Report relating to the CND activities for the year 2008; the Gottfried Wilhelm Leibniz Universität Hannover report relating to the activities in Work Package 7; the Gottfried Wilhelm Leibniz Universität Hannover Financial Statement for the year 2008 using the Excel file “FORM C - Model of Financial Statement per Activity for a Coordination Action for Infrastructures”; the Gottfried Wilhelm Leibniz Universität Hannover “Justification of resources deployed during the reporting period for CA”; and an audit certificate from an external auditor, certifying that the Gottfried Wilhelm Leibniz Universität Hannover costs incurred during the full contractual period of the CND meet the conditions required by the contract, as requested by the European Commission.
- Several e-mail contacts with Gottfried Wilhelm Leibniz Universität Hannover relating to the Gottfried Wilhelm Leibniz Universität Hannover contribution to the Annual Report relating to the CND activities for the year 2008; the report relating to the activities in Work Package 7; the “Financial Statement for the year 2008”; the “Justification of resources”; and the audit certificate from an external auditor.
- A letter on November 30, 2008 to Nuvia Limited with a request for the Nuvia Limited contribution to the Annual Report relating to the CND activities for the year 2008; the Nuvia Limited Financial Statement for the year 2008 using the Excel file “FORM C - Model of Financial Statement per Activity for a Coordination Action for Infrastructures”; the Nuvia Limited “Justification of resources deployed during the reporting period for CA”; and an audit certificate from an external auditor, certifying that the Nuvia Limited costs incurred during the full contractual period of the CND meet the conditions required by the contract, as requested by the European Commission.



- Several e-mail contacts with Nuvia Limited relating to the Nuvia Limited “Financial Statement for the year 2008”; the “Justification of resources”; and the audit certificate from an external auditor.
- Several e-mail contacts with Nuclear Research and consultancy Group relating to the NRG “Financial Statement for the year 2008”; the “Justification of resources”; and the audit certificate from an external auditor.

Specific documents relating to the activities of the CND in the year 2008 are referred to in Section 2, List of Deliverables, and are gathered on a CD-ROM in annex to this final report.

Some specific organisational measures had to be taken or specific status notified:

- In an information to the CND Co-ordinator during the ad hoc meeting on 28-29 April, 2008 in Warrington, United Kingdom, NUKEM Ltd announced that the company name would be changed and from May 16, 2008 formally be registered as NUVIA Limited, all other details and addresses remaining the same. According to item 6, CHANGE OF NAME AND LEGAL DETAILS OF A CONTRACTOR, of the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”, when legal details (such as simply the name or address of a contractor or the change of authorised legal representative) are changed, no formal contract amendment was needed.
- In an information to the CND Co-ordinator during the ad hoc meeting on 24-25 June, 2008 in Trnava, Slovak Republic, DECOM Slovakia spol. s.r.o. announced that the company name had changed and has been formally registered as DECOM a.s., and that the address had been changed to Sibirska 1, 91701 Trnava, Slovak Republic, all other details remaining the same. According to item 6, CHANGE OF NAME AND LEGAL DETAILS OF A CONTRACTOR, of the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”, when legal details (such as simply the name or address of a contractor or the change of authorised legal representative) are changed, no formal contract amendment was needed.
- In a letter to the CND Co-ordinator on April 1, 2008, Colenco Power Engineering Limited announced that the company name had changed and had been formally registered as AF Colenco Ltd, all other details and addresses remaining the same. According to item 6, CHANGE OF NAME AND LEGAL DETAILS OF A CONTRACTOR, of the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”, when legal details (such as simply the name or address of a contractor or the change of authorised legal representative) are changed, no formal contract amendment was needed.
- In an e-mail to the CND Co-ordinator on 29 April 2009, Nuclear Research and consultancy Group announced that Mr. W.C.M. van Beek had replaced Mr. P. J. Sayers as the “duly authorised Financial Manager”, all other details remaining the same. According to item 6, CHANGE OF NAME AND LEGAL DETAILS OF A CONTRACTOR, of the document “GUIDELINES ON AMENDMENTS TO FP6 CONTRACTS”, when legal details (such as simply the name or address of a contractor or the change of authorised legal representative) are changed, no formal contract amendment was needed.
- In an e-mail and telephone conversation on 13 June, 2008, Forschungszentrum Karlsruhe informed the CND Co-ordinator that the Work Package 3 Manager, Mr. Luis Valencia, had experienced specific personal problems and that it would be difficult for him to continue his activities within Work Package 3. In addition, the CND Co-ordinator was informed that the activities within the OECD/NEA WPPD and CPPD had experienced serious delays or had come to a stand-still. As a result, the CND Co-ordinator agreed that he would take over the role as the Work Package 3 Manager up to the end of the contract, i.e., up to December 31, 2009.

During the fifth and last meeting of the Steering Group of the CND, the future of the CND-website and the related data base has been discussed.

At the start of the CND, it had been decided that operational tools were required to support the activities within the CND and that maximum benefit had to be taken of the tools that were developed within the former EC Framework Programmes:

- The operational website of the Thematic Network on Decommissioning of Nuclear Installations (EC-TND);
- The database on technical and cost aspects of decommissioning (EC-DB-NET2);
- The EC website on decommissioning (EU-DECOM);
- The information library (database EC-CDD).

It had been requested that the related software tools be grouped and integrated in one system in order to ensure the long-term continuity of the entire CND. It had also been requested to integrate the technical support and the maintenance of all operational tools and to ensure that no further development was envisaged but primarily use and maintenance with technical update of the integrated system in view of solving operational problems. The CND Co-ordinator had been given the mandate to ensure the required activities for the integration of the related tools.

Analyses had been carried out in order to define the required actions for the implementation of the requested integration of the operational tools. The results of these analyses had been included in a dedicated report that had been discussed with the EC officers responsible for the technical, scientific and financial follow-up of the contract for the CND, in order to justify the selection of the company CORE2 as a subcontractor for providing the required services.

Considering these analyses and after agreement of the EC, the EC-TND website had been completely converted into the CND website and the responsibilities for the various work areas had been adapted. Also the information relating to the Compendium on Decommissioning had been consolidated in the CND website. The information relating to the EU-DECOM website had been analysed, grouped, restructured, reviewed and stored as individual pdf-files within the CND website. Access to the EC database on costs and tools had been given through the CND website for all Members and Associated Members of the CND. As such, in principle, the objectives relating to the integration of the former EC-TND-website, the former EC-CDD-website, the EU-DECOM-website and the EC-DB-NET2 had been achieved.

A last step would have been a full integration of the CND website and the database on costs and tools, EC-DB-NET2, on one single platform. This might have been implemented easier and less expensive if all components would have been available on the same server. In addition, the documents stored in the open public area under the section “About decommissioning and decommissioning activities in Europe”, including the information considered in the EU-DECOM website, could have been made accessible for updating by the owner of the information. Other elements for improving the use of the CND website might have been considered as well.

The CND Co-ordinator had made a further evaluation based on some specific additional considerations:

- The CND part of the website was posted on a server of the private company CORE2 in Greifswald, while the EC-DB-NET2 database on costs and tools was an ORACLE-database posted on a server of the University of Hannover. The management software for both systems had been developed by CORE2.
- The Consortium for the CND was the owner of the entire CND website, including the EC-DB-NET2 database.
- Information on the CND website could in principle only be changed by the supplier of the information. Some suppliers were no longer a Member or an Associated Member of the CND, however.
- All systems were in an operational condition and operation was consolidated until the end of the contractual period of the CND project, i.e., in principle until the end of the year 2008.
- Further implementation and maintenance of the system if under the management of the University of Hannover would require financial means to enable the University of Hannover to implement these activities.
- As decommissioning was considered to be an industrial activity, in the Research and Development Programme of the EC, there were no longer financial resources available to support the activities

relating to the CND website. It was very unlikely that EC-DGTREN would make financial means available to support activities in that area.

- If the activities of the CND project were not prolonged after the end of the contractual period, private companies might be interested in the global CND website in order to use the characteristics of the website for commercial reasons.

Considering these evaluations, considering that it was explicitly the aim of the Steering Group to bring the project to a good end, and considering that it was questioned to be necessary for the project to have all elements on one server, the Steering Group had decided to keep the status-quo relating to the entire system of the CND website and wait for future interests.

In addition to this historical overview, it was considered that:

- In December 2008, the link between the CND website and the database on costs and tools, EC-DB-NET2, had been broken by the University of Hannover.
- The intellectual property of the operating software for the CND website belongs to CORE2.
- The technical information on the CND website had been prepared by the CND Co-ordinator.
- The operating software for the data base on costs and tools, EC-DB-NET2, had been developed by CORE2 under a contract with the University of Hannover.
- The technical structure of the EC-DB-NET2 had been developed based on recommendations from among others, the CND Co-ordinator.
- The information in the database had been provided under the EC-DB-NET2 contract of several partners with the EC and managed by the University of Hannover.

In line with the foregoing information, the CND Co-ordinator proposed that the database on costs and tools, EC-DB-NET2, would be transferred to the University of Hannover and the remaining CND website would be transferred to CORE2. All specific information relating to individual references, personal information as well as to EC-meetings and minutes of EC-meetings should be removed from the CND website. The CND Co-ordinator together with CORE2 would discuss in detail the information that could remain and the information that should be removed. As a conclusion, this meant that the intellectual rights of the CND website would be transferred to CORE2, without further costs for the CND.

The representative of CORE2, Mr. Roland Schulz, accepted the conditions of this proposal.

The Members of the Steering Group in the meeting have agreed with this proposal and asked the CND Co-ordinator to inform Mr. Alexander Schenk of the University of Hannover of this decision.

### **1.2.5 Summary and conclusions of the management activities after four working years**

The contract for the CND was signed between the European Commission and Colenco Power Engineering Ltd on December 15, 2004; the official starting date of the contract was January 1, 2005.

**At the start of the first year of the CND**, all partners signed the “FORM A – ACCESSION TO THE CONTRACT”, expressing their consent to become a contractor to the contract signed between the Commission of the European Communities and Colenco Power Engineering Ltd, and accepting in accordance with the provisions of the aforementioned contract all the rights and obligations of a contractor. In addition, all partners signed a Consortium Agreement in order to specify the organisation of the work between the Contractual Partners, to organise the management of the CND, to define the rights and the obligations of the Contractual Partners, including but not limited to their contribution, liability and indemnification, to supplement the provisions of the Contract relating to the CND, including those concerning Access Rights, and to set out any other rights and obligations of the Contractual Partners relating to the CND, but not conflicting with those of the Contract.

A Strategic Plan was developed in order to implement the objectives of the CND during the start-up phase, including guiding principles for working within the Steering Group, within the CND meetings and within meetings of the working groups.

The Mission Statement for the CND was approved as well as the practical organisation of and the terminology to be used for the CND. Each Member of the Steering Group agreed to take responsibility for at least one of the work areas that would be considered relating to the objectives of the CND.

For each working area, the terms of reference, work plan and work schedule were agreed. The responsible managers and supporting managers were invited to further develop the presented ideas and start the proposed activities. Organisations interested in participating in the activities of the CND were searched. The fundamental criterion for participation in the CND as an Associated Member would be the interest for the participant himself and for the other participants in the CND. The participants in the CND should therefore show a potential to transfer to other participants information, technology and good practice which could be useful to their own activities and to future decommissioning projects. In more general terms, they should contribute to keep, enhance and promulgate the European expertise and competitiveness in the decommissioning field at the international level and within national and international organisations, particularly in view of the EU enlargement process. Based on these considerations, the terms of reference and a model Associated Membership Agreement for participation in the CND were approved.

A coherent and consistent Project Communication Action Plan was defined and proposed to the EC scientific officer to be implemented by the Consortium during the life of the project.

The relationships with the EC Directorate General Transport and Energy (DG TREN), the International Atomic Energy Agency, the OECD/NEA/Co-operative Programme on Decommissioning (CPD), the Working Party on Decommissioning and Decontamination (WPDD) of the OECD/NEA, the United States Department of Energy (US DOE) and the Japanese RANDEC were considered. It was agreed that DG TREN, the IAEA and the CPD would have an observer in the Steering Group. The discussions with the WPPD were expected to be finalised in the beginning of 2006. The US DOE and the Japanese RANDEC would not participate as an Associated Member in the CND.

After dedicated analyses, the integration of the operational website of the Thematic Network on Decommissioning of Nuclear Installations (TND), the EC website on decommissioning (EU-DECOM) and the information library (EC-CDD) within the CND website was established including a link to the database on technical and cost aspects of decommissioning (EC-DB-NET2). The CND website was characterised by an **open public area** with general information about the “Mission”, the “Mission Statement”, the “Strategic Options”, and the “Values” of the CND, about news and events relating to CND activities, about results that had been obtained, about decommissioning and decommissioning activities in Europe, including the information considered in the EU-DECOM website, and about other important subjects. In addition, a link to the database on technical and cost aspects of decommissioning (EC-DB-NET2) had been created. A **protected member area** and specific **protected working group areas** were made available in order to enable the participants in the CND and in a working group or a working area to interact with each other and exchange information. The CND website was made available at the internet address <http://www.ec-cnd.net>.

The analyses carried out in order to define the required actions for the implementation of the requested integration of the operational website of the Thematic Network on Decommissioning of Nuclear Installations (TND), the database on technical and cost aspects of decommissioning (EC-DB-NET2), the EC website on decommissioning (EU-DECOM) and the information library (EC-CDD) had required much more work and time than expected, however. In addition, the discussions relating to the justification of selecting the company CORE2 as a subcontractor for providing the required services had lasted until the beginning of October 2005, enabling the subcontract relating to the integration activities to be signed on October 11, 2005.

Due to the intensive development work, the overall delay could be reduced to about one month and would be recovered in the second year (2006) for the contract relating to the CND.

**At the start of the second year of the CND**, an introductory meeting with interested organisations of the CND was held, the objectives being to create interest in the CND activities, presenting the terms of reference relating to the work areas defined in the Mission Statement of the CND, asking for other interesting items that could be developed in future, presenting the terms of reference and the Associated Membership Agreements for participation, and training CND Members in using the CND website and the database on technical and cost aspects of decommissioning (EC-DB-NET2).

Relating to the development of further activities, it had to be accepted that reimbursement of costs was limited to the terms specified in the contract. As the scope of work within the CND might cover a broad area of interest and create a wide spectrum of activities, it was obvious that priorities had to be given and restrictions accepted in order to stay within the limits of the budget and in order to ensure that adequate results might be obtained within the framework of the initiatives that were proposed and defined by the participants.

Based on the discussions at this first general meeting of the CND, the Steering Group Members reviewed the terms of reference for the various working areas, including an *introduction/background*, the *objectives*, the *scope of work, related information and activities to be considered*, the *modus operandi* and the *reporting* with the expected deliverables.

Following the conclusions and the recommendations from the first general meeting, the Steering Group was expected to initiate the required initiatives (working groups, data collection, information exchange via the CND website, preparing reports, or others), which would be communicated to the Members and Associated Members of the CND via the CND website. In view of these initiatives, the participating organisations were asked to express their interest in supporting activities of such working groups through a letter of intent to the CND Co-ordinator. The Members of the Steering Group would make the required contacts in order to start the proposed activities. More than 30 organisations applied (effectively) for Associated Membership of the CND, and some 50 participants from these organisations were expected to be able to contribute to the activities of the various working areas.

It was expected that the activities from the individual participants in these working areas might have started at large scale from the beginning of March 2006. Six months were considered to be the necessary time period for the managers of the various work packages of the CND to develop and support the initiatives. Therefore, September 2006 was considered to be the time to make a round-up of the activities developed within the CND, to evaluate the progress of work, and to update the objectives, the strategies and the management activities if necessary. It had to be recognised, however, that at the end of 2006, except for specific work areas, no significant progress had been made in the various activities and that a quite large effort should have to be developed in the coming months to achieve the expected final results.

**At the start of the third year of the CND** and considering the foregoing status, a meeting with the technical and legal representatives of Directorate RTD of the European Commission was held in order for the European Commission to take notice of the available information and discuss the remaining options.

It was evaluated that the progress of work within Work Package 1 was in line with the planned schedule and that the first part of Work Package 2 relating to the aspects “Strategies, Policies and Funding” had been finalised. The progress of work within Work Package 5 had incurred a delay of about six months, while, in general, the activities relating the remaining part of Work Package 2 and relating to Work Packages 3, 4, 6 and 7 had incurred a delay of about one year.

The delays in the Work Packages were due to the difficulties encountered to get information and to have adequate support from Associated Members of the CND in the specific Work Packages, but certainly also to the lack of support from and the *de facto* withdrawal of three partners in the contract

for the CND, creating additional tasks for the eight remaining partners that could only be implemented in series with the planned tasks.

During the first three years of the working period of the Co-ordination Network, the CND Co-ordinator had sent several responses to organisations interested in participating in the activities of the CND. The fundamental criterion for participation in the CND as an Associated Member had been confirmed to be the interest for the participant himself and for the other participants in the CND. The participants in the CND should therefore show a potential to transfer to other participants information, technology and good practice which could be useful for their own activities and for future decommissioning projects. In more general terms, they should contribute to keep, enhance and promulgate the European expertise and competitiveness in the decommissioning field at the international level and within national and international organisations, particularly in view of the EU enlargement process. More than 30 organisations had shown interest in participating in the activities of the CND. Many of the responses for membership had remained unanswered, however.

Nevertheless, the activities within the various Work Packages were expected to provide documents that could have positive impacts on the state-of-the-art in decommissioning and decontamination, and considering that it was explicitly the aim of the Steering Group to bring the project to a good end, the EC was asked for an extension of the time schedule relating to the CND project by one year, without any request for additional financial means, however. Moreover, it was agreed to terminate the participation of EWN, SOGIN and AllDeco in the Contract from August 1, 2007; and to modify Annex I "Description of work" in order to implement a redistribution of the work.

In a letter of September 2, 2007, the European Commission agreed with the request of the Steering Group to change the duration of the contract to 48 months and, as a result, the responsibilities for the Work Packages were reviewed.

In addition, considering the actual developments within the CND, and the reduced/limited support that could be obtained from the Associated Members, it was considered that the CND had evolved from an open forum to a more limited "club" of interested partners. Considering this evolution, it was agreed that there was no longer a need to have a general meeting of the CND in the year 2007, but that more specialised workshops could lead to more efficient results. A final general meeting of the CND could be organised in September-October 2008. During this meeting, the results of the activities developed in the various Work Packages could be presented, discussed and finally tuned in order to prepare the final reports relating to the activities of the CND.

For this reason, the Managers of the various Work Packages were invited to organise the necessary meetings (2 to 3 meetings IAEA style, each meeting taking maximum or less than 1 week) with the partners in the Work Packages and other members of the Steering Group in case they showed interest. The objective of these meetings would be to collect the required information and prepare a draft document that could be discussed, completed with available information and finalised.

Relating to the CND website, it had been considered that a last step would be a full integration of the CND website and the database on costs and tools EC-DB-NET2 on one single platform. This might be implemented easier and less expensive if all components would be available on the same server. In addition, the documents stored in the open public area under the section "About decommissioning and decommissioning activities in Europe", including the information considered in the EU-DECOM website, could be made accessible for updating by the owner of the information. Other elements for improving the use of the CND website could be considered as well.

Considering some further evaluations, however, considering that it was explicitly the aim of the Steering Group to bring the project to a good end, and considering that it was questioned to be necessary for the project to have all elements on one server, the Steering Group decided to keep the status-quo relating to the entire system of the EC-CND website and wait for future interests.

**During the fourth year of the CND**, following the agreement of the EC to change the duration of the contract for the CND to 48 months, following the review of the responsibilities for the various Work Packages and following the decision that more specialised workshops should be held with the partners in the Work Packages and other members of the Steering Group in case they showed interest (as a result of the reduced/limited support that could be obtained from the Associated Members, and the CND as such having evolved from an open forum to a more limited “club” of interested partners), the following ad hoc meetings were organised:

- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the draft report relating to the activities of Work Package 5 on April 28-29, 2008 in Warrington, United Kingdom.
- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the development of the report relating to the activities of Work Package 4 on May 13-15, 2008 in Arnhem, The Netherlands.
- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4 on June 6, 2008 in Baden, Switzerland.
- Second ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4 on June 24-25, 2008 in Trnava, Slovak Republic.
- Ad hoc meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Package 4 on July 29, 2008 in Arnhem, The Netherlands.
- Fourth meeting of the (extended) Steering Group of the EC – Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Packages 2, 3, 4 and 6 on September 8-11, 2008 in Trnava, Slovak Republic.
- Fifth meeting of the (extended) Steering Group of the EC – Co-ordination Network on Decommissioning of Nuclear Installations (to discuss the final reports relating to the activities in the various Work Packages) on December 8-10, 2008 in Trnava, Slovak Republic.

In addition, it was discussed that a one week seminar would be organised in Madrid, in the offices of ENRESA, to discuss specifically the issues considered in the development of the report for Work Package 4, “Site Characterisation, Remediation and Reuse”, i.e., the *European Radiation Survey and Site Execution Manual (EURSSEM)*. However, after the meeting on 29 July 2008 in Arnhem, where the drafts of sections 2 and 4 for the Work Package 4 report had been discussed, Mr. Leo Van Velzen and the CND Co-ordinator had evaluated that the Work Package 4 report would be much more important than expected and that the progress of work was such that organising a seminar with broad participation in September 2008 was too early. Therefore, it was decided that this seminar should be organised in the second week of November 2008. Due to a lack of interest from the invited people and due to illness of a remaining interested person, the seminar had to be cancelled as a whole and it had to be decided to limit the last meeting of the EC-CND to a co-ordination meeting, mainly to discuss the final reports relating to most of the Work Packages and other outstanding issues relating to the finalisation of the project.

Finally, during the fifth and last meeting of the Steering Group of the CND, the future of the CND-website and the related data base was discussed. Based on the available information, it was decided that the database on costs and tools, EC-DB-NET2, would be transferred to the University of Hannover and the remaining CND website would be transferred to CORE2. All specific information relating to individual references, personal information as well as to EC-meetings and minutes of EC-meetings should be removed from the CND website.

As a general conclusion, the start of the CND had been very promising and during the first three years of the working period of the CND, several responses had been sent to organisations interested in participating in the activities of the CND. The fundamental criterion for participation in the CND as an Associated Member was confirmed to be the interest for the participant himself and for the other participants in the CND. The participants in the CND should therefore show a potential to transfer to

other participants information, technology and good practice which could be useful for their own activities and for future decommissioning projects. In more general terms, they should contribute to keep, enhance and promulgate the European expertise and competitiveness in the decommissioning field at the international level and within national and international organisations, particularly in view of the EU enlargement process. More than 30 organisations showed interest in participating in the activities of the CND. Many of the responses for membership remained unanswered, however.

As a result, the activities within the various Work Packages suffered from a lack of interest from companies and institutions to provide data relating to decommissioning and decontamination activities. Considering these actual developments, and considering the reduced support that could be obtained from the Associated Members, it was evaluated that the CND had evolved from an open forum to a more limited “club” of interested partners. Considering this evolution, it had been discussed that more specialised workshops could lead to more efficient results.

For this reason, the managers of the various Work Packages were invited to organise the necessary ad hoc meetings with the partners in the Work Packages and other members of the Steering Group in case they show interest. The objectives of these meetings have been to collect the required information and prepare a draft document that could be discussed, completed with available information and finalised.

At the end, the final reports relating to the activities developed within the 4 years’ period of the Contract for the EC Co-ordination Network on Decommissioning of Nuclear Installations could be finalised, including more than 1500 pages. The fourth and last year of the Contract had been very fruitful, therefore. Especially the developments within Work Package 4 should be highlighted, with the creation of *EURSSEM*.

It should be reminded that the CND had started the activities with 11 partners: EWN Greifswald, SOGIN, AllDeco, FzK, NUVIA Limited, University of Hannover, Rez, ENRESA, NRG, DECOM a.s. and Colenco. Though the first two partners (EWN Greifswald and SOGIN) had withdrawn very early from the project and the third one (AllDeco) had withdrawn some months later and FzK had reduced its contributions after the second year, the objectives in the various Work Packages could be met thanks to the remaining partners. From the final reports it can be seen that the driving organisations have certainly been NUVIA Limited, ENRESA, NRG, DECOM a.s. and Colenco.

### **1.3 Update of the non-confidential Project information**

**Reporting Period:** Full Period: 01/01/2005 – 31/12/2008

**Project Web-site address:** [www.ec-cnd.net](http://www.ec-cnd.net)

#### **Project Objectives:**

No changes are required to the text already provided in the previous version of the Database Report.

#### **Project Achievements:**

Following implementation of the requested integration of the operational website of the Thematic Network on Decommissioning of Nuclear Installations (TND), the EC website on decommissioning (EU-DECOM) and the information library (EC-CDD), within the CND website a link to the database on technical and cost aspects of decommissioning (EC-DB-NET2) had been established. Though access to the EC Database on Decommissioning was still not completely clarified, such access had been given to all active members of the CND.

A first introductory meeting with interested organisations of the CND was held in January 2006. The objectives were creating interest in the CND activities, proposing the policy papers that were developed by the Members of the Steering Group, asking for other interesting items that could be developed in future,



presenting the terms of reference and the Associated Membership Agreements for participation, and training CND Members in using the CND website and the database on technical and cost aspects of decommissioning (EC-DB-NET2).

Following the presentations relating to the CND website and the EC database on tools and costs, the participants in the meeting had the opportunity to get personal access to both operational software systems. In two specific sessions, the participants were trained in the use of the CND website and the database on tools and costs (EC-DB-NET2). Extended additional information was given about the functional features of both software tools and about their future role as a “meeting place” to keep the CND participants closer to each other and to improve team collaboration and communication within the CND.

Discussions were held on the future activities of the Co-ordination Network. In view of these discussions, the Members of the Steering Group had prepared Terms of Reference relating to the work areas defined within the Mission Statement of the CND. In 6 short presentations, the Members of the Steering Group gave an overview of the possible contents of future work as proposed in the Terms of Reference. After the presentations, the participants were given the time to discuss the contents of the terms of reference and to raise questions, comments and recommendations for the future.

Based on the discussions at the 1<sup>st</sup> General Meeting of the CND, the Steering Group Members reviewed the Terms of Reference for the various working areas. The revised documents were put on the CND website with the aim to call for interested organisations to participate actively in the working areas, as well as to call for relevant information. The Steering Group Members also agreed to plan and to follow the time schedule for the implementation of the activities in the defined working areas.

In co-operation with the Directorate Transport and Energy of the European Commission, a **first document** could be finalised relating to “*Analysis of the factors influencing the selection of strategies for decommissioning of nuclear installations*”. The purpose of the study was to identify and analyse the factors influencing the selection of strategies for the decommissioning of nuclear installations in the 25 European Union (EU) Member States as well as in the Candidate Countries Bulgaria and Romania. In addition, Switzerland was included in the comparison as a non-European Union Country.

The study involved a thorough consultation of the affected stakeholders on the factors that had been taken into account in the process of selecting a decommissioning strategy for nuclear installations in the various countries. The results of the consultation process were analysed separating items which were site specific from those which were common to most decommissioning projects. The study also took into account relevant publicly available publications relating to the selection of strategies for the decommissioning of nuclear facilities, with the aim to avoid duplication of work and provide clear added value to the existing publications on the subject.

A **second document** relating to “*Integrated Management and Project Management and Planning of Decommissioning*” has been prepared proposing baseline guidance/a (generic) model for an integrated management/planning system for decommissioning. Recognising the leading role of the IAEA in this area, the proposed baseline guidance is based mostly on IAEA documents complemented by other available resources, especially ISO standards and guidelines.

First, the basic words and terms that are used in the document and that might cause confusion have been clarified and defined in order to avoid ambiguity. Further, a general introduction, a management and integrated management system with a process approach and examples for identification of processes of organisations have been described. Afterwards, decommissioning activities and their characteristics were introduced with requirements for planning these activities. The integrated management system requirements and a baseline scheme of an integrated management system were given in further sections. In the last part of the document different approaches to decommissioning project management have been considered.

A first part of a **third document** on “*Cost aspects of decommissioning*”, concentrates on the collection and analysis of information on costing methodologies in decommissioning. Standardised decommissioning costing, management of material flow in decommissioning, methods for project optimisation, sensitivity analysis in decommissioning costing, management of accuracy in cost calculations and approaches for parametric costing systems have been addressed. An overview has been given of available codes for the calculation of decommissioning costs.

Further a summary of costing approaches has been considered including aspects such as cost categories, unit factors, period dependent activities, collateral costs, contingencies and multi-option approaches. Practical steps to be considered in decommissioning costing have been given such as the development of a facility inventory database, the development of a database of unit factors and local calculation data, the identification of the decommissioning activities for costing, the sequence of costing activities and grading in decommissioning costing.

An overview has been given of initiatives for the exchange of experience in decommissioning costing and for the promotion of uniformity and standardisation in costing. Finally, some mutual links have been identified between cost aspects and strategies/funding/policies/planning for decommissioning.

A **fourth document** on “*Material Management and Characterization Techniques*” provides an overview of current experience in characterization and management of materials and wastes, in monitoring systems and procedures, and in unconditional release and reuse of materials from decommissioning operations.

The objective has been achieved by reviewing available experiences in material management considering sources/quantities/characteristics of materials, material management routes/options, waste minimization, conditioning and packaging, cost evaluation of options; in the clearance process, including methodologies, procedures, monitoring systems, detection devices, monitoring campaigns, scaling factors, statistical analyses, documentation, compliance with clearance levels; in organization and information systems, considering on-site organizational systems for material management, waste/material management information systems, and material traceability systems; in waste characterization, considering techniques, instrumentation, monitoring of alpha-contamination/isotopes difficult to measure, characterization of historic wastes and waste for final disposal; and in the management of special wastes, alpha wastes, graphite, Na, Be, solvents, resins, mixed wastes, etc., including waste quantities/characteristics, packaging, conditioning, treatment/storage, disposal.

A **fifth document** has been prepared under the name “*European Radiation Survey and Site Execution Manual (EURSSEM)*” providing a consistent consensus approach and guidance to conduct all actions at radioactively contaminated and potentially radioactively contaminated sites and/or groundwater up to their release for restricted or unrestricted (re)use. This approach and guidance was expected to be both scientifically rigorous and flexible enough to be applied for a diversity of site (surface) clean-up conditions.

The title *EURSSEM* includes the term “survey” because it should provide information on control, planning and conducting surveys, and the term “execution” because the processes outlined in the manual should allow interested persons/organisations to execute planned actions. It was envisaged that the *EURSSEM* guidance should:

- focus on demonstration of compliance with regulations and standards during all stages of a project.
- include as well the general functional approach “what has to be done or what should be required”, as detailed guidance “how it can be done or how it can be demonstrated that requirements are met”.
- not be intended and never have the intention to be prescriptive (a consensus approach should be advocated).
- primarily be written from rendering a service point of view according to the best available practice.

Five principles have been identified for the development of a consistent approach and guidance to conduct all actions at radioactively contaminated and potentially radioactively contaminated sites

and/or groundwater up to their release for restricted or unrestricted (re)use; protection of people and environment; stakeholder involvement; identifying the preferred site management option; immediate action; and archiving for future referencing.

*EURSSEM* begins with the development of a contaminated land strategy and focuses on radiological characterisation of a site and on processes involved in how actually doing this. Remediation and post-remediation activities (restoration) guidelines are presented, as well as information and guidelines on reuse and long-term stewardship.

For a **sixth document**, detailed information on the institutional and legal framework for nuclear activities, on the regulatory framework, licensing and de-licensing of nuclear installations including decommissioning plan, on radiological protection and industrial safety for all 25 EU Member States and two Applicant Countries (Romania and Bulgaria) has been collected by means of a questionnaire that had been sent to nuclear regulatory authorities, competent bodies, government organizations of all 27 Member States of the European Union.

The received responses have been compiled, assessed and analysed with regard to commonalities and divergences. Country profiles of individual Member States have been generated which have been sent to the respective country's competent bodies for final verification and endorsement.

All information has been collected in the document *“Institutional, Legal and Regulatory Aspects; Licensing and Decommissioning Plan; Radiological Protection and Industrial Safety”*, presenting a description of each individual Member State's status and identifying common grounds and divergences. On the basis of this assessment, an attempt to harmonise regulatory framework and regulatory standards in radiological protection and radioactive waste management amongst Member States has been undertaken.

A **seventh document**, *“New Considerations Relating to Screening and Scoping within the Environmental Impact Assessment Process. Public Participation and Socio-economic Aspects in Decommissioning of Nuclear Power Plants”*, refers to the fact that an environmental impact assessment (EIA) identifies and assesses a project's likely significant environmental effects and enables proposals in order to eliminate or mitigate the potential impacts of the activities. As a main part of its body, the methodology supporting this process also includes the involvement of the public in the project decision-making process in an active and effective manner.

With more and more consolidated legislation in Europe, the consciousness appears of the importance of covering aspects related to communication and involvement of the public. Great efforts are developed in this direction in order to precisely identify the stakeholders, and especially the public as one of these, to improve the way of integration in the process from the early stages, not only because it is mandatory under the European Union framework but also for minimizing future misunderstanding and for taking those actions that are considered to be relevant for the people in the surroundings.

On the other hand, in a decommissioning project the main concerns for the public in the surroundings of an industrial area are those related to the socio-economic aspects involved in the loss of the industrial activity and the impoverishment of the area. These concerns are usually not considered in the environmental impact assessment process but are crucial to understand the needs of the public in those areas, putting pressure on local administrations to control and participate closely in the process.

The document covers these aspects by reviewing the “state-of-the-art” of the environmental impact assessment process in terms of public participation, especially in the screening and scoping phases. It also includes a review of the socio-economic aspects affecting the development of decommissioning projects of nuclear power plants. Finally, it comprises an analysis of selected projects in different countries including attempts of public participation put into practice through several public participation procedures.

In a **last document** on “*Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how*”, it was intended to collect data relating to the dissemination of best practices, experience and know-how and evaluate the need for training relating the current state-of-the-art of decommissioning and dismantling techniques using the database on technical and costs aspects of decommissioning (EC-DB-NET2) that was developed within the former EC Framework Programs.

The preparation of the document has suffered from a lack of interest from companies and institutions to provide data relating to decontamination and decommissioning activities in the structure of the EC-DB-NET2 database on costs and tools, however.

As a result, it was decided to prepare a final report based on information that could be made available from a co-operative work of the Work Package 7 Manager and other active members of the CND with the EUNDETRAF project. Additional dedicated information could be collected from the activities developed in the area of decommissioning costs.

The report provides a list with basic review of dismantling and decontamination techniques as well as aspects of implementation, parameters and safety aspects of dismantling and decontamination techniques in decommissioning costing. In addition, the organisation of dismantling and decontamination techniques in databases, implementation of dismantling and decontamination techniques in the structure of the ‘Proposed Standardised List of Items for Costing Purposes’ (PSL) and the selection of dismantling and decontamination techniques for calculation in decommissioning costing was discussed.

In general, the document represents an overview of the state-of-the-art in the area based on different documents to which participants of the Co-ordination Network on Decommissioning of Nuclear Installations (CND) have contributed in a substantial way.

As a summary, the final documents relating to the activities developed within the 4 years’ period of the Contract for the EC Co-ordination Network on Decommissioning of Nuclear Installations include about 1’500 pages. The fourth and last year of the Contract has been very fruitful, therefore. Especially the creation of EURSSEM should be highlighted.

## 2. List of deliverables

Following is a consolidated list of the main deliverables achieved during the contractual period as requested in the Annex I “Description of work” to the contract.

Activity	Deliverable No	Deliverable Name	Workpackage /Task No	Delivered by Contractor(s)	Planned (in months)	Achieved (in months)
WP1	D1	Draft Project Communication Action Plan	WP1/T2	1	3	3
WP1	D2	Final Project Communication Action Plan	WP1/T2	1	6	6
WP1	D3	A collaborative communication platform that enables CND members to share and to manage information associated with the CND and their related tasks	WP1/T3	1	11	12
WP1	D4	An information database relating to existing technical literature and published documents that will systematically cover the areas of interest defined in the CND	WP1/T3	1	11	12
WP1	D5	An instrument enabling public information about the CND	WP1/T3	1	11	12
WP1	D6	Final report covering the objectives of the CND, how these objectives were met and the results and conclusions of the activities within the various areas	WP1/T1 WP1/T2 WP1/T3 WP1/T4	1	48	54
WP1	D7	Summary of activities according to the Project Communication Action Plan and their impact	WP1/T2	1	48	48
WP2	D8.1	A quality assured, peer reviewed final report covering the objectives of work area 2, how these objectives were met and the results and conclusions of the activities: “ <i>Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations</i> ”	WP2/T1 WP2/T2 WP2/T3	1	12	12
WP2	D8.2	A quality assured, peer reviewed final report covering the objectives of work area 2, how these objectives were met and the results and conclusions of the activities: “ <i>Integrated Management and Project Management and Planning of Decommissioning</i> ”	WP2/T4 WP2/T5 WP2/T6	13	48	48
WP2	D8.3	A quality assured, peer reviewed final report covering the objectives of work area 2, how these objectives were met and the results and conclusions of the activities: “ <i>Cost aspects of decommissioning</i> ”	WP2/T7 WP2/T8 WP2/T9 WP2/T10	13	48	54
WP3	D9	A quality assured, peer reviewed final report covering the objectives of work area 3, how these objectives were met and the results and conclusions of the activities: “ <i>Material Management and Characterization Techniques</i> ”	WP3/T1 WP2/T2	13	48	47
WP4	D10	A quality assured, peer reviewed final report covering the objectives of work area 4, how these objectives were met and the results and conclusions of the activities: “ <i>European Radiation Survey and Site Execution Manual (EURSSEM)</i> ”	WP4/T1 WP4/T2 WP4/T3 WP4/T4	11	48	54
WP5	D11	A quality assured, peer reviewed final report covering the objectives of work area 5, how these objectives were met and the results and conclusions of the activities. <i>Institutional, Legal and Regulatory Aspects; Licensing and Decommissioning Plan; Radiological</i>	WP5	16	48	45

		<i>Protection and Industrial Safety</i>				
WP6	D12	A quality assured, peer reviewed final report covering the objectives of work area 6, how these objectives were met and the results and conclusions of the activities. <i>New Considerations Relating to Screening and Scoping within the Environmental Impact Assessment Process. Public Participation and Socio-economic Aspects in Decommissioning of Nuclear Power Plants</i>	WP6/T1 WP6/T2 WP6/T3 WP6/T4 WP6/T5 WP6/T6 WP6/T7 WP6/T8	8	48	48
WP1	D13	An integrated online Internet platform for the <i>Database on Technical and Cost Aspects on Decommissioning</i> , providing an information database relating to former and existing technical decommissioning projects that will systematically cover the areas of interest defined in this work area	WP7	1	48	48
WP7	D14	A quality assured, peer reviewed final report covering the objectives of work area 7, how these objectives were met and the results and conclusions of the activities. <i>Dismantling Techniques, Decontamination Techniques, Dissemination of Best Practice, Experience and Know-how, and Evaluation of the Needs for Training</i>	WP7/T1 WP7/T2 WP7/T3	7	48	54

In addition, following is a list of other deliverables that have been achieved during the contractual period.

Activity	Deliverable No	Deliverable Name	Workpackage /Task No	Delivered by Contractor(s)	Planned (in months)	Achieved (in months)
WP1	D0	First Interim Management Report for the Period 01.01.2005 - 31.07.2005	WP1/T1	1	6	7
WP1	D0	First Annual Report for the Period 01.01.2005 – 31.12.2005	WP1/T1	1	14	14
WP1	D0	Second Annual Report for the Period 01.01.2006 – 31.12.2006	WP1/T1	1	26	29
WP1	D0	Third Annual Report for the Period 01.01.2007 – 31.12.2007	WP1/T1	1	36	39
WP1	D0	Fourth Annual Report for the Period 01.01.2008 – 31.12.2008	WP1/T1	1	48	51
WP2	D0	Terms of Reference for Work Package 2	WP2/T0	13	2	2
WP2	D0	Progress Report on WP2 for the year 2005	WP2/T0	13	12	12
WP2	D0	Revised Terms of Reference for Work Package 2	WP2/T0	13	14	14
WP2	D0	Progress report on WP2 for the year 2006	WP2/T0	13	24	26
WP2	D0	Progress report on WP2 for the year 2007	WP2/T0	13	36	38
WP2	D0	Progress report on WP2 for the year 2008: oral communication	WP2/T0	13	48	50
WP3	D0	Terms of Reference for Work Package 3	WP3/T1	12	2	2
WP3	D0	Progress Report on WP3 for the year 2005	WP3/T3	12	12	12
WP3	D0	Revised Terms of Reference for Work Package 3	WP3/T1	12	14	14
WP3	D0	Progress report on WP3 for the year 2006	WP3/T3	12	24	28
WP3	D0	Progress report on WP3 for the year 2007: oral communication	WP3/T3	6	36	39
WP3	D0	Progress report on WP3 for the year 2008: oral communication	WP3/T3	6	48	50
WP4	D0	Terms of Reference for Work Package 4	WP4/T1	11	2	2
WP4	D0	Leaflet with a summary of the terms of reference and proposals on special topics for site characterisation, site remediation and site reuse	WP4/T1	11	12	12
WP4	D0	Progress Report on WP4 for the year 2005	WP4/T3	11	12	12
WP4	D0	Revised Terms of Reference for Work	WP4/T1	11	14	14

FINAL REPORT

Package 4						
WP4	D0	Progress report on WP4 for the year 2006	WP4/T3	11	24	27
WP4	D0	Progress report on WP4 for the year 2007: oral communication	WP4/T3	11	36	39
WP4	D0	Progress report on WP4 for the year 2008: oral communication	WP4/T3	11	48	50
WP5	D0	Terms of Reference for Work Package 5	WP5/T1	16	2	2
WP5	D0	Progress Report on WP5 for the year 2005	WP5/T3	16	12	12
WP5	D11	Draft report outlining the format of presentation of accumulated information	WP5/T4	16	12	12
WP5	D0	Revised Terms of Reference for Work Package 5	WP5/T1	16	14	14
WP5	D0	Progress report on WP5 for the year 2006	WP5/T3	16	24	24
WP5	D0	Progress report on WP5 for the year 2007	WP5/T3	16	36	37
WP5	D0	Progress report on WP5 for the year 2008	WP5/T3	16	48	50
WP6	D0	Terms of Reference for Work Package 6	WP6/T1	8	2	2
WP6	D0	Progress Report on WP6 for the year 2005	WP6/T2	8	12	12
WP6	D0	Revised Terms of Reference for Work Package 6	WP6/T1	8	14	14
WP6	D0	Progress report on WP6 for the year 2006	WP6/T2	8	24	25
WP6	D0	Progress report on WP6 for the year 2007	WP6/T2	8	36	36
WP6	D0	Progress report on WP6 for the year 2008: oral communication	WP6/T2	8	48	50
WP7	D0	Terms of Reference for Work Package 7	WP7/T1	7	2	2
WP7	D0	Publication relating to the CND activities for the KONTEC 2005 proceedings	WP7/T3	7	4	4
WP7	D0	Progress Report on WP7 for the year 2005	WP7/T2	7	12	12
WP7	D0	Revised Terms of Reference for Work Package 7	WP7/T1	7	14	14
WP7	D0	Publication relating to the CND activities for the BHR Conference on Water Jetting	WP7/T3	7	21	21
WP7	D0	Publication relating to the CND activities for the Grosse Schweisstechnische Tagung des DVS	WP7/T3	7	21	21
WP7	D0	Publication relating to the CND activities for the International Conference on Cutting Technologies (ICCT)	WP7/T3	7	22	22
WP7	D0	Publication relating to the CND activities for the 2. Symposium "Stilllegung und Rückbau kerntechnischer Anlagen" des TÜV Nord Ensys (2 <sup>nd</sup> symposium on the decommissioning of nuclear facilities)	WP7/T3	7	23	23
WP7	D0	Publication relating to the CND activities for the EUNDETRAF theoretical/-practical seminar	WP7/T3	7	23	23
WP7	D0	Progress report on WP7 for the year 2006	WP7/T2	7	24	24
WP7	D0	Progress report on WP7 for the year 2007: oral communication	WP7/T2	7	36	39
WP7	D0	Progress report on WP7 for the year 2008: oral communication	WP7/T2	7	48	50

Finally, following is a list of other documents that had been prepared.

Document number	Document Title
EC/CND/(2005)01	Agenda of the First Meeting of the Steering Group of the EC – Co-ordination Network on Decommissioning of Nuclear Installations, Baden, February 10, 2005
EC/CND/(2005)02	Strategic Plan CND-2005 in order to Implement the Objectives of the <i>Co-ordination Network</i> during the Start-up Phase
EC/CND/(2005)03	Mission Statement of the Co-ordination Network on Decommissioning of Nuclear Installations
EC/CND/(2005)04	Terms for participation in the <i>Co-ordination Network on Decommissioning of Nuclear Installations</i>
EC/CND/(2005)05	Model Associated Membership Agreement
EC/CND/(2005)06	Integration of the TND website, the EC database and the EC website on decommissioning
EC/CND/(2005)07	KONTEC 2005, 20-22 April, 2005, Berlin, Germany, Poster Session: Co-ordination Network on

Document number	Document Title
	Decommissioning of Nuclear Installations
EC/CND/(2005)08	Summary Record of the First Meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations, Baden, February 10, 2005
EC/CND/(2005)09	EC Co-ordination Network on Decommissioning of Nuclear Installations (EC-CND): Project Communication Action Plan
EC/CND/(2005)10	Letter to the Participants of the Thematic Network on Decommissioning of the European Commission in order to invite them to participate in the CND
EC/CND/(2005)11	Implementation of the integration of the TND website, the EC database and the EC website on decommissioning
EC/CND/(2005)12	Justification for the implementation of the integration of the TND website, the EC database and the EC website on decommissioning
EC/CND/(2005)13	Agreement for the design and maintenance of an internet website for the Co-ordination Network on Decommissioning of Nuclear Installations
EC/CND/(2005)14	Letter to CORE” relating to the Agreement for the Design and Maintenance of an Internet Website for the ‘Co-ordination Network on Decommissioning of Nuclear Installations’
EC/CND/(2005)15	Agenda for the Second Meeting of the Steering Group of the EC – Co-ordination Network on Decommissioning of Nuclear Installations, Karlsruhe, January 12-13, 2006
EC/CND/(2005)16	Agenda for the First General Meeting of the EC – Co-ordination Network on Decommissioning of Nuclear Installations, Forschungszentrum Karlsruhe, January 26-27, 2006
EC/CND/(2005)17	Working area Strategies, Policies and Funding, Programme/Project Management and Planning, and Cost Aspects. Analysis of the Factors Influencing the Selection of Strategies for Decommissioning of Nuclear Installations. Interim Report
EC/CND/(2005)18	Model Form EC-CND.NET – Membership Information
EC/CND/(2005)19	Co-ordination Network on Decommissioning of Nuclear Installations. First Interim Management Report 01.01.2005 - 31.07.2005
EC/CND/(2006)01	Abstract for a presentation on the “Co-ordination Network on Decommissioning of Nuclear Installations” on the Conference on ‘Managing Nuclear Liabilities’ in Manchester 18-20 July 2006
EC/CND/(2006)02	Letter to SOGIN relating to the participation of Società Gestione Impianti Nucleari p.a. in the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (19 January 2006)
EC/CND/(2006)03	Letter to EWN relating to the participation of Energiewerke Nord GmbH. in the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (19 January 2006)
EC/CND/(2006)04	Summary Record of the Second Meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations, Karlsruhe, January 12-13, 2006
EC/CND/(2006)05	First General Meeting on January 26-27, 2006, Roles of Facilitators and Rapporteurs
EC/CND/(2006)06	First General Meeting on January 26-27, 2006, List of Participants
EC/CND/(2006)07	1 <sup>st</sup> Annual Report of the Co-ordination Network on Decommissioning of Nuclear Installations, Reporting period from 01/01/2005 to 31/12/2005
EC/CND/(2006)08	Summary Record of the First General Meeting of the EC Co-ordination Network on Decommissioning of Nuclear Installations, Karlsruhe, January 26-27, 2006
EC/CND/(2006)09	Letter to the EC including the 1 <sup>st</sup> Annual Report of the Co-ordination Network on Decommissioning of Nuclear Installations, Reporting period from 01/01/2005 to 31/12/2005
EC/CND/(2006)10	Draft Conclusions from the Discussions on the Proposed Future Activities for the Co-ordination Network on Decommissioning of Nuclear Installations held during the First General Meeting of the EC Co-ordination Network on Decommissioning of Nuclear Installations, Karlsruhe, January 26-27, 2006
EC/CND/(2006)11-08	Letter to Siempelkamp Nukleartechnik GmbH relating to the Associated Membership Agreement of Siempelkamp Nukleartechnik GmbH to the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (24 January 2006)
EC/CND/(2006)11-12	Letter to the Public Agency for Radioactive Waste Management (PURAM) relating to the Associated Membership Agreement of Public Agency for Radioactive Waste Management (PURAM) to the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (21 January 2006)
EC/CND/(2006)11-23	Letter to DDR Consult relating to the Associated Membership Agreement of DDR Consult to the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (21 January 2006)
EC/CND/(2006)11-24	Letter to CORE2 Consult GmbH relating to the Associated Membership Agreement of CORE2 Consult GmbH to the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (30 March 2006)
EC/CND/(2006)11-60	Letter to Brenk Systemplanung relating to the Associated Membership Agreement of Brenk Systemplanung to the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (30 March 2006)
EC/CND/(2006)11-61	Letter to Belgoproces n.v. relating to the Associated Membership Agreement of Belgoproces n.v. to the ‘Co-ordination Network on Decommissioning of Nuclear Installations’ (23 February 2006)
EC/CND/(2006)12	Revised Terms of Reference for the Work Area ‘Policies, Strategies and Funding, Programme/Project Management and Planning, and Costs Aspects’ (24 February 2006)
EC/CND/(2006)13	Revised Terms of Reference for the Work Area ‘Material Management and Characterisation Techniques, and Recycle and Reuse of Materials’ (24 February 2006)
EC/CND/(2006)14	Revised Terms of Reference for the Work Area ‘Site Characterisation, Remediation and Reuse’ (24 February 2006)



<b>Document number</b>	<b>Document Title</b>
EC/CND/(2006)15	Revised Terms of Reference for the Work Area 'Institutional, Legal and Regulatory Aspects, Licensing and Decommissioning Plan, and Radiological Protection and Industrial Safety' (24 February 2006)
EC/CND/(2006)16	Revised Terms of Reference for the Work Area 'Environmental and Socio-economic Aspects, and Public Perception, Public Relation' (24 February 2006)
EC/CND/(2006)17	Revised Terms of Reference for the Work Area 'Dismantling Techniques' (24 February 2006)
EC/CND/(2006)18	Revised Terms of Reference for the Work Area 'Decontamination Techniques' (24 February 2006)
EC/CND/(2006)19	Revised Terms of Reference for the Work Area 'Dissemination of Best Practice, Experience and Know-How, and Evaluation of the Need for Training' (24 February 2006)
EC/CND/(2007)01A	Registered letter to Nuclear Research Institute Rez plc relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01B	Registered letter to Energiewerke Nord GmbH relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01C	Registered letter to Forschungszentrum Karlsruhe GmbH relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01D	Registered letter to Gottfried Wilhelm Leibniz Universität Hannover relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01E	Registered letter to Empresa Nacional de Residuos Radiactivos s. a. relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01F	Registered letter to Società Gestione Impianti Nucleari p. a. relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01G	Registered letter to Nuclear Research and consultancy Group relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01H	Registered letter to AllDeco s.r.o. relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01I	Registered letter to DECOM Slovakia spol. s. r. o. relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)01J	Registered letter to NUKEM Limited relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (30 January 2007)
EC/CND/(2007)02	Agenda for the Third Meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations, Karlsruhe, April 2-3, 2007
EC/CND/(2007)03	Letter to the EC including the 2 <sup>nd</sup> Annual Report of the Co-ordination Network on Decommissioning of Nuclear Installations, Reporting period from 01/01/2006 to 31/12/2006
EC/CND/(2007)04	Summary Record of the Third Meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations, Karlsruhe, April 2-3, 2007
EC/CND/(2007)05	Letter to EWN relating to the participation of Energiewerke Nord GmbH in the 'Co-ordination Network on Decommissioning of Nuclear Installations' (25 July 2007)
EC/CND/(2007)06	Letter to the EC Scientific Officer relating to the participation of Energiewerke Nord GmbH in the 'Co-ordination Network on Decommissioning of Nuclear Installations' (26 July 2007)
EC/CND/(2007)07	Letter to SOGIN relating to the participation of Società Gestione Impianti Nucleari p.a. in the 'Co-ordination Network on Decommissioning of Nuclear Installations' (25 July 2007)
EC/CND/(2007)08	Letter to the EC Scientific Officer relating to the participation of Società Gestione Impianti Nucleari p.a. in the 'Co-ordination Network on Decommissioning of Nuclear Installations' (26 July 2007)
EC/CND/(2007)09	Letter to the EC Scientific Officer with the request for an extension for one year to the duration of the Contract CND – No. FI6O-CT2004-505855: Co-ordination Network on Decommissioning of Nuclear Installations (26 July 2007)
EC/CND/(2007)10	Letter to AllDeco s.r.o. relating to the participation of AllDeco s.r.o. in the 'Co-ordination Network on Decommissioning of Nuclear Installations' (26 July 2007)
EC/CND/(2007)11	Letter to the EC Scientific Officer relating to the participation of AllDeco s.r.o. in the 'Co-ordination Network on Decommissioning of Nuclear Installations' (26 July 2007)
EC/CND/(2007)12	Registered Letter with Acknowledgement of Receipt to the EC Scientific Officer relating to the 'Request for Amendment to Contract No. FI6O-CT2004-505855, Project "Co-ordination Network on Decommissioning of Nuclear Installations"' (26 July 2007)
EC/CND/(2007)13	Letter to the EC Scientific Officer relating to the Change of Name and Legal Details of Contractor UNIVERSITAET HANNOVER in the Contract No. FI6O-CT2004-505855, Project "Co-ordination Network on Decommissioning of Nuclear Installations" (27 July 2007)
EC/CND/(2007)14	Letter to the Partners in the Steering Group of the Co-ordination Network on Decommissioning relating to the "Actual Status" of the Project after agreement of the EC with the extension of the duration of the contract (28 September 2007)
EC/CND/(2008)01	Letter to NUKEM Limited relating to the Status of the 'European Commission Co-ordination Network

<b>Document number</b>	<b>Document Title</b>
	on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)02	Letter to Forschungszentrum Karlsruhe relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)03	Letter to Gottfried Wilhelm Leibniz Universität Hannover relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)04	Letter to Empresa Nacional de Residuos Radiactivos s. a. relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)05	Letter to Nuclear Research and consultancy Group relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)06	Letter to DECOM Slovakia spol. s. r. o. relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)07	Letter to Nuclear Research Institute Rez plc relating to the Status of the 'European Commission Co-ordination Network on the Decommissioning of Nuclear Installations (EC-CND)' (16 January 2008)
EC/CND/(2008)08	Letter to DECOM a.s. in order to confirm the tasks and the related budget for the additional activities of DECOM a.s. for the reports relating to Work Packages 2, 3 and 4 (11 October 2008)
EC/CND/(2008)09	Agenda for the fifth meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations, Trnava, December 8-10, 2007
EC/CND/(2008)10	Letter to Nuclear Research Institute Rez plc relating to the Rez contribution to the "Annual Report 2008", the "Financial statement for 2008", the "Justification of Resources for 2008" and the audit certificate (30 November 2008)
EC/CND/(2008)11	Letter to Forschungszentrum Karlsruhe relating to the FzK contribution to the "Annual Report 2008", the "Financial statement for 2008", the "Justification of Resources for 2008" and the audit certificate (30 November 2008)
EC/CND/(2008)12	Letter to Gottfried Wilhelm Leibniz Universität Hannover relating to the Gottfried Wilhelm Leibniz Universität Hannover contribution to the "Annual Report 2008", the report relating to the Work Package 7 activities, the "Financial statement for 2008", the "Justification of Resources for 2008" and the audit certificate (30 November 2008)
EC/CND/(2008)13	Letter to Nuvia Limited relating to the Nuvia Limited contribution to the "Annual Report 2008", the "Financial statement for 2008", the "Justification of Resources for 2008" and the audit certificate (30 November 2008)
EC/CND/(2008)14	Agenda of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the draft report relating to the activities of Work Package 5, Warrington, April 28-29, 2008
EC/CND/(2008)15	Summary record of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the draft report relating to the activities of Work Package 5, Warrington, April 2-28-29, 2008
EC/CND/(2008)16	Agenda of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the development of the report relating to the activities of Work Package 4, Arnhem, May 13-15, 2008
EC/CND/(2008)17	Summary record of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the development of the report relating to the activities of Work Package 4, Arnhem, May 13-15, 2008
EC/CND/(2008)18	Agenda of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4, Baden, June 6, 2008
EC/CND/(2008)19	Summary record of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4, Baden, June 6, 2008
EC/CND/(2008)20	Agenda of the second ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4, Baden, June 6, 2008
EC/CND/(2008)21	Summary record of the second ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss additional tasks for DECOM a.s. in Work Packages 3 and 4, Baden, June 6, 2008
EC/CND/(2008)22	Agenda of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Package 4, Arnhem, July 29, 2008
EC/CND/(2008)23	Summary record of the ad hoc meeting of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Package 4, Arnhem, July 29, 2008
EC/CND/(2008)24	Agenda for the fourth meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Packages 2, 3, 4 and 6, Trnava, September 8-11, 2007
EC/CND/(2008)25	Summary record of the fourth meeting of the Steering Group of the EC - Co-ordination Network on

FINAL REPORT

Document number	Document Title
	Decommissioning of Nuclear Installations to discuss the progress of work relating to the activities of Work Packages 2, 3, 4 and 6, Trnava, September 8-11, 2007
EC/CND/(2008)26	Summary record of the fifth meeting of the Steering Group of the EC - Co-ordination Network on Decommissioning of Nuclear Installations, Trnava, December 8-10, 2007

A copy of the achieved deliverables and the additional documents is gathered on a CD-ROM in annex to this final report.

### 3. Use and dissemination of knowledge

In the first work year of the CND, the CND website had been developed comprising an **open public area** with general information about the “Mission”, the “Mission Statement”, the “Strategic Options”, and the “Values” of the CND, about news and events relating to CND activities, about results that have been obtained, about decommissioning and decommissioning activities in Europe, including the information considered in the EU-DECOM website, and about other important subjects. In addition, a link to the database on technical and cost aspects of decommissioning (EC-DB-NET2) had been created.

A **protected member area** and specific **protected working group areas** had been made available in order to enable the participants in the CND to interact with each other and to exchange information. These areas were intended to be a single “meeting place” to keep the CND participants closer to each other and to improve team collaboration and communication. Access to these areas was granted by the CND Co-ordinator after an Associated Membership Agreement had been signed for participation in the CND. The areas comprised:

- A document area for storing documents of any file format relating to specific issues and CND participants had the opportunity to add comments to each document. Through a notification service, every participant got per e-mail information about newly arrived documents.
- Discussion forums where CND participants might discuss issues through an online message exchange, while also e-mail notification was available.
- A “Contact Manager” section with address information about the participants of the CND, as well as the participant profile, and a possibility to send e-mail messages and schedule meetings among CND participants.

For each working area, the Members of the Steering Group prepared the terms of reference, work plan and work schedule. In addition, the documents or references collected for developing the Compendium on the State-of-the-Art in Decommissioning and Decontamination were stored under the related document sections of the various work areas of the CND.

The main features of the website were:

- Internet allows exchange of information at any time and from any place.
- Effective access to available information at a reasonable price.
- An easy solution to allow CND participants to interact with each other and exchange information, including Shared File Storage, discussion forums, a “Contact Manager” section, automatic notifications, a tool that was simple to use and would not require training, experience in project management or Internet experience.

The CND website was available at the internet address <http://www.ec-cnd.net>.

In the second year, also the information relating to the Compendium on Decommissioning was consolidated in the CND website. Access to the EC database on costs and tools was given through the CND website for all Members and Associated Members of the CND. As such, in principle, the objectives relating to the integration of the former TND-website, the former CDD-website, the EU-DECOM-website and the EC-DB-NET2 had been achieved.

A last step would be a full integration of the CND website and the database on costs and tools EC-DB-NET2 on one single platform. This might be implemented easier and less expensive if all components would be available on the same server. In addition, the documents stored in the open public area under the section “About decommissioning and decommissioning activities in Europe”, including the

information considered in the EU-DECOM website, could be made accessible for updating by the owner of the information. Other elements for improving the use of the CND website might be considered as well.

An evaluation was made based on some specific additional considerations:

- The CND part of the website was posted on a server of the private company CORE2 in Greifswald, while the EC-DB-NET2 database on costs and tools was an ORACLE-database posted on a server of the University of Hannover. The management software for both systems had been developed by CORE2.
- The Consortium for the CND was the owner of the entire CND website, including the EC-DB-NET2 database.
- Information available on the CND website could in principle only be changed by the supplier of this information. Some suppliers were no longer Member or Associated Member of the CND, however.
- All systems were in an operational condition and operation was consolidated until the end of the contractual period of the EC-CND project, i.e. in principle until the end of the year 2008.
- Further implementation and maintenance of the system if under the management of the University of Hannover would require financial means to enable the University Hannover to implement these activities.
- As decommissioning is considered to be an industrial activity, in the Research and Development Programme of the EC, there are no longer financial resources available to support the activities relating to the CND website. It was very unlikely that EC-DGTREN would make financial means available to support activities in that area.
- If the activities of the CND project were not prolonged after the end of the contractual period, private companies might be interested in the global CND website in order to use the characteristics of the website for commercial reasons.

Considering these evaluations, considering that it was explicitly the aim of the Steering Group to bring the project to a good end, and considering that it was questioned to be necessary for the project to have all elements on one server, the Steering Group had decided to keep the status-quo relating to the entire system of the CND website and wait for future interests.

During the fifth and last meeting of the Steering Group of the CND, the future of the CND-website and the related data base has been discussed.

In addition to this historical overview, it was considered that:

- At the end of 2008, the link between the CND website and the database on costs and tools, EC-DB-NET2, had been broken by the University of Hannover.
- The intellectual property of the operating software for the CND website belongs to CORE2.
- The technical information on the CND website had been prepared by the CND Co-ordinator.
- The operating software for the data base on costs and tools, EC-DB-NET2, had been developed by CORE2 under a contract with the University of Hannover.
- The technical structure of the EC-DB-NET2 had been developed based on recommendations from among others, the CND Co-ordinator.
- The information in the database had been provided under the EC-DB-NET2 contract of several partners with the EC and managed by the University of Hannover.

In line with the foregoing information, the CND Co-ordinator has proposed that the database on costs and tools, EC-DB-NET2, would be transferred to the University of Hannover and the remaining CND website would be transferred to CORE2. All specific information relating to individual references, personal information as well as to EC-meetings and minutes of EC-meetings should be removed from the CND website. The CND Co-ordinator together with CORE2 would discuss in detail the

information that could remain and the information that should be removed. As a conclusion, this meant that the intellectual rights of the CND website would be transferred to CORE2.

The representative of CORE2, Mr. Roland Schulz, accepted the conditions of this proposal.

The Members of the Steering Group in the meeting agreed with this proposal and asked the CND Coordinator to inform Mr. Alexander Schenk of the University of Hannover of this decision.

The Project Communication Action Plan has remained valid through the full contractual period of the CND.

## **Annexes**

**Annex 1** – CD-ROM with the deliverables produced during the contractual period, including summaries and conclusions of the General Meetings.

## B. MANAGEMENT REPORT (FINANCIAL INFORMATION)

### 1. Audit certificates relating to the activities of the various partners during the contractual period

Following are, for each contractor, the audit certificates relating to the activities of the various partners during the contractual period.

- |  |                  |
|--|------------------|
| • AF Colenco Ltd                                 | Lucien Teunckens |
| • Nuclear Research Institute Rez                 | Jozef Podlaha    |
| • Gottfried Wilhelm Leibniz Universität Hannover | Alexander Schenk |
| • Empresa Nacional de Residuos Radiactivos s.a.  | Sergio Vidaechea |
| • Nuclear Research and consultancy Group         | Leo van Velzen   |
| • DECOM a.s.                                     | Vladimir Daniska |

As no audit certificate relating to the activities of the partner during the contractual period was received, no audit certificates are given for:

- |                                    |               |
|------------------------------------|---------------|
| • Forschungszentrum Karlsruhe GmbH | Luis Valencia |
| • NUVIA Ltd                        | Anisur Rahman |

The related documents will be sent as soon as they have been provided by the respective partners.



## 2. Summary financial report

Following is a **Summary financial report (Appendix 3)** consolidating the costs claimed by each contractor for the contractual period.

- AF Colenco Ltd

Lucien Teunckens

## C. REPORT ON THE DISTRIBUTION OF THE COMMUNITY FINANCIAL CONTRIBUTION

Following is the **Report on the distribution between contractors made during the contractual period (up to 1 June 2009) of the Community financial contribution (Appendix 4).**

- AF Colenco Ltd

Lucien Teunckens