

# **DEVELOPMENT AND IMPLEMENTATION OF A NATIONAL DIRECTORY OF BROKERS AND PROCESSORS PROVIDING SERVICES TO LOW-LEVEL RADIOACTIVE WASTE GENERATORS IN THE UNITED STATES**

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## **ABSTRACT**

This paper describes a joint project of the Southeast Compact Commission (Commission) and the Low-Level Radioactive Waste Forum, Inc. (LLW Forum) to create a national directory of brokers and processors providing waste management services to the generators of low-level radioactive waste (LLRW). The directory is intended for use by LLRW compacts, states, federal agencies, and users of radioactive materials to provide information about companies that transport, process, or otherwise manage radioactive material in preparation for ultimate disposal.

## **INTRODUCTION**

In mid-2002, several generators of LLRW in the Southeast region expressed to the Commission staff the need for a single, comprehensive resource for information about companies that transport, process, or otherwise manage radioactive material in preparation for ultimate disposal. As a result, the Commission began the development of a comprehensive directory of brokers and processors providing waste management services to those generators.

Early in the project the Commission teamed with the LLW Forum to expand the project to create a national directory of brokers and processors for use by LLRW compacts, states, federal agencies, and users of radioactive materials throughout the United States.

## **DEVELOPMENT AND IMPLEMENTATION OF THE DIRECTORY**

In developing the directory, the goal of the Commission and the LLW Forum was to provide a comprehensive database of all brokers and processors providing waste management services that would be available to everyone - LLRW compacts, government agencies, users of radioactive materials, and the general public - at no cost. Furthermore, the Commission and the LLW Forum decided to provide the listing in the directory free of charge in order to encourage greater participation by brokers and processors.

In the fall of 2002, the authors worked with a consultant to develop a project outline and began the initial phase of the project by identifying the scope of the directory. The

potential beneficiaries/audience/users of the directory and the key information to be included in the directory were defined by reviewing responses from a project questionnaire, discussions with state and compact members of the LLW Forum, and review of similar existing directories.

The next phase of development was the identification of all possible service providers to be included in the directory. This entailed reviewing the then existing directories available on the Internet and in print. The authors also contacted numerous individuals in the nuclear industry for their suggestions and reviewed other existing sources, including trade publications, professional organization publications, and lists of sponsors, attendees, and exhibitors at a number of industry conferences and meetings. From this information the authors compiled a comprehensive list of 56 brokers and processors, who were then contacted by phone, letter, and email to explain the benefits of being listed in the directory and urging them to participate.

During the research and development phases of the directory, we became aware that other organizations and agencies had attempted to compile similar data. While we found such other sources to be valuable and useful tools in building our own directory, these other data sources were tailored to a limited audience and had limitations in terms of their ability to remain comprehensive and up to date. For instance, one such listing of brokers and processors contains more technical data and is updated by a single staff person, as time permits. Another document has not been updated for several years.

While the list of brokers and processors was being developed, the authors and their consultant worked on the development of the vehicles to be used to disseminate the directory to the intended audience. They determined that a web-based system using a user-friendly search engine would be the most efficient vehicle. In addition, a printed version of the directory in abbreviated form would be published.

The database is built on an interactive questionnaire to allow brokers and processors to enter data on their own and in as much or as little detail as they choose. This reduces the cost of maintaining the database and eliminates the potential for errors during manipulation of data.

The web-based system allows brokers and processors to obtain a password from the site administrator that enables them to go directly online to submit information on their companies and to update their information whenever necessary. The system also allows users to search the directory in a number of ways to locate brokers and processors that meet their specific needs.

After being tested and evaluated, the directory was released for online use in May of 2003 and now includes detailed information from 34 brokers and processors. The directory is located online at <http://www.bpdirectory.com>.

Listees will update the online directory as their information changes. Quarterly reminders will be sent to each listed entity asking them to update their information and will be sent to non-listed entities inviting them to participate. In late 2003, such

reminders were sent out for the first time. In addition to various updates and new information entered by several listees, eleven new entities provided information and were included in the directory for the first time as a direct result of the reminders.

We expect this directory to be used more frequently than previous directories because it is easily accessible via the internet or in hard copy, is highly accurate and up to date since the listees enter the information themselves, and is understandable by the lay or technical person alike. Indeed, the directory is developed in such a way that a user can get very elementary information - such as contact data, types of waste handled and processes employed - to much more technical information such as license conditions and restrictions and specific radionuclides accepted. In addition to being advertised on the web sites of the LLW Forum and the Southeast Compact and LLW Forum's publications, the system is being promoted by states and interstate compacts alike.

### **USING THE DIRECTORY AND SEARCH ENGINE**

The database for each of the listed companies contains the following information:

- Company name and address;
- Contact person with contact information;
- Information on whether the company operates as a broker, processor, or transporter;
- Waste products handled;
- Waste management services offered;
- Permits and licenses held by the company;
- Radionuclides accepted;
- Limits or restrictions on the waste accepted; and
- Additional comments.

The search engine enables users of the directory to look for brokers and processors who meet their particular needs. Users may search by individual company name, an alphabetical list of all companies in the directory, waste product, and services provided by the companies as displayed in Figure 1.



(Figure 1. – Directory Search Engine)

To search by a company name, a user may type in the name of a particular company that he is seeking. The user will then be taken to a page that provides detailed information on that broker or processor, including identification of the specific services offered, waste products handled, licenses and permits held, waste acceptance criteria, and contact information.

Alternatively, the user may select a broker or processor from the list of all companies offering services to view detailed information.

To search the directory for companies that provide services for a specific waste product, the user may choose from the following product selection:

- Ion-Exchange Resin
- Concentrated Liquids
- Cartridge Liquids
- Compactable Trash
- Non-Compactable Trash
- Liquid Scintillation Vials
- Liquid Waste
- Biological Waste
- Mixed Waste
- NORM

- NARM
- 11e.(2)
- TENORM
- Sealed Sources
- Other (lead, radon, etc.)

Once the user selects a waste product, he is provided with a list of those companies that provide processing, brokering, and/or transportation services for that specific waste product. The user may then select a company to view detailed information.

To search the directory for companies that provide a specific service, the user may choose from the following service selection:

- Disposal
- Storage
- Decay in Storage
- Transportation
- Sizing
- Compaction
- Filtration
- Decontamination
- Evaporation
- Separation / Survey for Release
- Part 61 Characterization Analysis
- Incineration
- Vitrification
- Immobilization / Stabilization / Solidification
- Metal Recovery
- Physical Chemical Treatments
- Other Processing Technologies / Services

Once the user selects a waste service, he is provided with a list of those companies that provide processing, brokering, and/or transportation services for that specific waste service. The user may then select a company to view detailed information.

## **HOW TO LIST A COMPANY IN THE DIRECTORY**

The directory is designed to allow listed companies to input their data and to update that information when needed. Companies that wish to be included in the directory may complete an online form and submit it to the database manager, who will provide the company with a password allowing the company access to the database. Figure 2 provides contact information for the directory.

**National Directory of Brokers and Processors**  
A Product of the LLW Forum, Inc. and the Southeast Compact Commission

HOME

ABOUT LLW FORUM  
ABOUT SE COMPACT  
COMPANY SEARCH  
QUESTIONNAIRE  
CONTACT US  
LOG OUT

**CONTACT US**

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**National Broker & Processor Directory**  
Jean McGinley, Database and Content Manager  
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**Apply to be Included in the National Directory**

The Low-Level Radioactive Waste Forum, Inc. and the Southeast Compact Commission for Low-Level Radioactive Waste Management have developed a national directory of **brokers, processors, and transporters** of radioactive material. The directory is intended for use by compacts, states, federal agencies and others to provide information to generators seeking to package, transport, process, or otherwise manage radioactive material in preparation for ultimate disposal.

(Figure 2. – Contact Information)

## DISCLAIMER AND COPYRIGHT

The Commission and the LLW Forum are not responsible for any errors in or omissions from the information contained in or accessed through the directory site. All such information is provided "as is" without warranty of any kind.

The LLW Forum and the Commission do not endorse any companies listed in the directory or guarantee the accuracy of the listed information, but rather provide the information as a service to their members and the general public.

The LLW Forum and the Commission own the works of authorship contained in the directory World Wide Web Site. These works may not be copied, reproduced, transmitted, displayed, performed, distributed, rented, sublicensed, altered, stored for subsequent use, or otherwise used in whole or in part in any manner without prior written consent of the LLW Forum and the Commission.

## CONCLUSION

The Commission and the LLW Forum have developed a comprehensive database of all brokers and processors providing waste management services in the United States that is available to everyone – LLRW compacts, government agencies, users of radioactive

materials, and the general public - at no cost. The information contained in the directory is available both electronically and in printed form.

The directory is a living document that currently contains information on 34 companies. It serves as a valuable tool for those using the site, as well as for brokers and processors providing waste management services. Because each listed entity in the directory has the ability to electronically update their information via the use of individualized passwords and user names, we believe this directory will be more current than other directories of this type.

The Commission and the LLW Forum will use ongoing publicity for the directory to increase awareness of its availability, to increase the number of listings of companies in the directory, to encourage feedback from users of the web site, and to increase traffic on the web site. Furthermore, the LLW Forum and the Commission will continue to refine the web site and to periodically update the printed directory.