

# OCRWM Bulletin

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July 1987

## OCRWM Issues First Annual Capacity Report

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The Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste requires the U.S. Department of Energy (DOE) to issue an annual capacity report (ACR) for planning purposes beginning July 1, 1987. This report, which is not contractually binding on the signatories to the contract, provides the projected annual receiving capacity of the waste management system and the annual acceptance ranking of purchasers of disposal services for the first 10 years following the expected commencement of facility operations. DOE issued the first of the annual reports in June 1987, (DOE-RW-0146).

Because the configuration and operational details of the waste management system are still at the conceptual design stage, this initial ACR uses a projected waste acceptance schedule for an illustrative system configuration as defined in the Mission Plan Amendment (see *OCRWM Bulletin*, June 1987). The waste acceptance schedule presumes Congressional approval of DOE's monitored retrievable storage (MRS) proposal and reflects DOE's plans to integrate an MRS facility into the waste management system and to begin waste acceptance at the MRS facility in 1998.

The waste acceptance schedule is only an approximation of how the system may operate and is subject to uncertainties that are recognized in the Mission Plan Amendment. As the

program progresses, DOE will further define and specify the system operating and waste acceptance parameters. Because the annual capacity available for allocation is dependent on the annual receiving capacity of the waste management system as ultimately developed, the illustrative waste acceptance schedule used in the initial ACR may not be applicable in 1991. At that time, the annual priority ranking, upon which final delivery schedules for DOE's acceptance of title to materials for disposal will be based, will be issued.

Because acceptance capacity is limited in any given year, a ranking process is needed for allocating available capacity. This ranking process is based on an "oldest fuel first" (OFF) priority as specified in the contract. The spent nuclear fuel assemblies were listed by the date of their discharge from the reactor and divided into annual groupings with totals consistent with the annual acceptance capacity to be allocated. The annual groupings were then summed for each reactor and aggregated by purchaser. The results of this process are presented in the ACR.

The ACR also identifies issues which may affect annual acceptance capacity, allocation of capacity, delivery schedules, and acceptance criteria. For example, to achieve system operating efficiencies it may be necessary to have spent nuclear fuel shipping casks fully loaded when accepted by DOE for delivery. If allocated acceptance rights

are not compatible with the capacities of the casks, minor schedule adjustments may be necessary that could affect future allocations and schedules for other parties to the contract. Acceptance criteria must be developed in order to determine the basis for DOE approval of requests for changes in priority acceptance of material for disposal and for fuel requiring special handling. Issues such as these will require further exploration in order for DOE and the utilities to carry out their respective contractual responsibilities and to make long-range fuel management decisions. ☆

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For further information about the national program or for copies of new publications and documents listed in the "OCRWM Bulletin" contact the U.S. Department of Energy, OCRWM, Office of Policy and Outreach, Mail Stop RW-40, 1000 Independence Avenue, SW, Washington, DC 20585 (202) 586-5722. The OCRWM Information Services Directory is available to provide sources of program information for the States, Indian Tribes, involved parties, and the public.

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**Congressional Testimony on Legislative Proposals Relating to Nuclear Waste - Excerpts  
from Presentation by Ben C. Rusche, Director, OCRWM, Before the Committee  
on Energy and Natural Resources, United States Senate  
July 16, 1987**

"...By way of perspective, I understand that more than 30 bills have been introduced in the 100th Congress that would affect nuclear waste storage, transportation, or disposal. Each of these bills would, to one extent or another, alter the course of the U.S. nuclear waste disposal program presently underway. This being the case, it may be worthwhile to begin with a few introductory observations:

- First, our confidence in the basic principles and blueprint formulated by Congress via the Nuclear Waste Policy Act of 1982 (NWPA) continues unabated. We believe that permanent geologic isolation, deep underground, in solid rock formations coupled with integral monitored retrievable storage (MRS) is an excellent choice.
- Second, spent fuel and high-level waste continues to accumulate and

the need for disposal grows. It seems to me that the objectives of the NWPA remain valid and urgent.\*

- Third, thus far technical progress has been encouraging in spite of the difficulties in working with the affected parties. The key milestone was the President's approval last year of three sites for detailed study, testing and characterization.

"... Now, I am pleased to offer the Department's general summary and observations on the pending bills:

**S.1211 NUCLEAR WASTE  
REPROCESSING STUDY  
ACT OF 1987**

Sponsor: Senator Hecht

*Key Provisions:* ... initiate an analysis by the National Academy of Sciences (NAS) of the feasibility of reprocessing spent fuel... All site specific work on

potential repositories would be suspended while NAS studies the feasibility of reprocessing... The moratorium would freeze any further site investigations until the year 1990.

*Commentary:* When Congress considered nuclear waste disposal options, the question of reprocessing was considered. It was determined that resolving the nuclear waste disposal issue would be further complicated by adding to it the many national policy issues raised by reprocessing. It was decided by the Congress to keep the two issues separate in order to move to a much needed solution on nuclear waste. We continue to believe that was the correct choice. Another consideration is the limited design impact that reprocessing would have on a high-level

*(continued on page 6)*

\* See Table 1 and Figure 1, page 3

**Functions and Schedules for Coordinating Groups**

**Functions**

**Environmental Coordinating Group (ECG)**

To ensure compliance with repository environmental regulations and requirements; to provide for coordination and communication among Headquarters, Project Office, and contractor personnel involved in planning for environmental field studies, in particular, those needed for the environmental impact statement; and to ensure that information requests on environmental topics from States, Indian Tribes, local governments, the public, the Nuclear Regulatory Commission (NRC), and the utilities are met. (Gerald Parker, Chairman, [202] 586-5679)

**Geoscience Coordinating Group (GCG)**

To provide coordination of geoscience activities among the four repository projects and integration of those activities under the guidance of the Office of Geologic Repositories in order to achieve programmatic consistency and adequacy. The GCG also provides a forum for identifying and exchanging geoscience information among program elements and other interested and affected parties to ensure a common understanding and to maximize utilization of program resources. (Don Alexander, Chairman, [202] 586-1238)

**Institutional/Socioeconomic Coordinating Group (ISCG)**

To provide a forum for addressing national, generic, and project specific

institutional and socioeconomic issues to the implementation of the repository program with States, Indian Tribes, local government, and the public. (Barry G. Gale, Chairman, [202] 586-1116)

**Performance Assessment/Safety Assessment Coordinating Group (PASACG)\***

To coordinate DOE/Headquarters (HQ) activities in performance assessment, both preclosure and postclosure; to assure the development of uniform DOE/HQ guidance on postclosure performance assessment and preclosure safety assessment with full participation and technical input of the repository

*(continued on page 4)*

\* New Coordinating Group

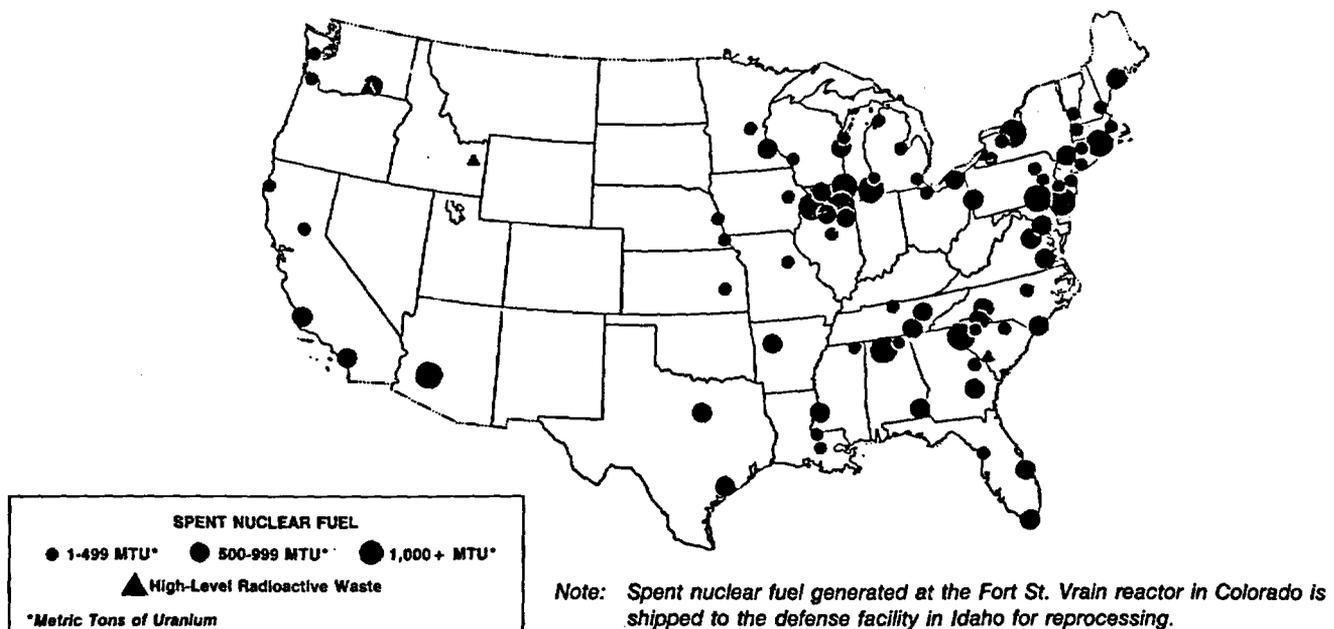
**Table 1: Existing and Projected Inventories of Spent Nuclear Fuel, by State: Years 1985 and 2000  
(In hundreds of units)**

State	Spent Nuclear Fuel			
	1985 (Metric Tons of Uranium)	2000	1985 (Cubic Meters)	2000
Alabama	9	29	4	11
Arizona	0	10	0	4
Arkansas	3	8	1	3
California	3	18	1	7
Connecticut	7	18	3	7
Florida	7	20	3	7
Georgia	3	15	1	6
Illinois	19	58	8	23
Iowa	1	3	*	1
Kansas	0	3	0	1
Louisiana	0	7	0	3
Maine	3	5	1	2
Maryland	4	9	2	4
Massachusetts	3	6	1	2
Michigan	7	23	3	9
Minnesota	5	11	2	4
Mississippi	0	8	0	3
Missouri	0	3	0	1
Nebraska	3	7	1	3
New Hampshire	0	5	0	2
New Jersey	4	18	2	7
New York	11	29	5	11
North Carolina	5	19	2	7
Ohio	1	10	*	4
Oregon	2	5	1	2
Pennsylvania	8	39	4	15
South Carolina	7	25	3	10
Tennessee	2	16	1	6
Texas	0	13	0	5
Vermont	2	4	1	2
Virginia	6	16	3	6
Washington	*	9	*	4
Wisconsin	4	10	2	4
<b>Total</b>	<b>129</b>	<b>479</b>	<b>55</b>	<b>187</b>

\* Less than 0.5

Source: Pacific Northwest Laboratory, Reactor Specific Spent Fuel Discharge Projections:1984 to 2020 (PNL-5396), April 1985.

**Figure 1: Geographic Distribution of Spent Nuclear Fuel and High Level Radioactive Waste by the Year 2000**



## Functions and Schedules for Coordinating Groups

(continued from page 2)

projects; to facilitate the technical changes between DOE/HQ and repository projects and among repository projects; and provide a forum for discussing issues related to postclosure performance assessment and preclosure repository safety with interested and affected groups and individuals. (Norman Eisenberg, Chairman, [202] 586-1239)

### **Project Management Coordinating Group (PMCG)**

A forum to exchange information among repository program participants and foster uniformity among project offices in implementing project management responsibilities including planning, scheduling, budgeting, and reporting of all activities. (Richard Blaney, Chairman, [202] 586-4590)

### **Quality Assurance Coordinating Group (QACG)**

To assure a coordinated approach to quality assurance (QA) and in the development of QA plans and QA procedures among the projects and Headquarters. To formulate and reach agreement on methods for meeting QA requirements. To provide a forum for exchanging information among the repository projects, Headquarters, representatives of the NRC and affected States and Indian Tribes, and with utilities and other interested groups. To ensure a clear understanding of project specific quality assurance programs, and plans for resolution of problems. (Karl Sommers, Chairman, [202] 586-1639)

### **Repository/Waste Package Coordinating Group (R/WPCG)\***

To coordinate activities related to repository surface and subsurface design, construction, operation, and decommissioning, including associated studies and technology development;

repository waste package design, and testing and performance activities. To integrate repository project waste interface with transportation and storage system activities (including the monitored retrievable storage facility, if approved). To conduct a systematic review of all known spent fuel characteristics related to their behavior in waste packages in the repositories; and to provide a forum for exchange of information to all interested and affected parties regarding the activities of the group. (Mark W. Frei, Chairman, [202] 586-9322)

### **Technical Code Coordinating Group (TCCG)**

To facilitate technical code information exchange information among OCRWM program organizations; to enhance effective utilization of existing technical codes; and to coordinate the development and maintenance of technical codes used by multiple OCRWM program participants. (Harold Steinberg, Chairman, [202] 586-5616)

### **Transportation Coordinating Group (TCG)**

A forum for the exchange of information and ideas by DOE, its contractors, the States and Indian Tribes, and the utilities and industry. All aspects of the OCRWM transportation program are discussed, including technical (e.g., cask development, spent fuel shipment, and risk assessment) and institutional activities. (Edwin L. Wilmot, Chairman, [202] 586-2837)

### **States/Indian Tribes (S/T)**

While not a coordinating group, informal coordination is provided three times per year at senior level policy meetings with affected repository States and Indian Tribes. The purpose of these meetings is to discuss issues of public concern. The public has been invited to attend these meetings. ☆

\* New Coordinating Group

## Currently Scheduled OCRWM Short-Term Program Milestones

July 1987	Issue final <i>Federal Register</i> notice on Defense Waste Fee.
July 1987	Issue first Annual Capacity Report.
Sept. 1987	Issue Site Characterization Plan for Tuff site.
Sept. 1987	Issue draft Environmental Regulatory Compliance Plans.
Oct. 1987	Issue Site Characterization Plan for Basalt site.
Nov. 1987	Issue final Program Reference Cost Baseline.
Dec. 1987	Issue <i>Federal Register</i> notice for Calendar Year 1988 Federal Interim Storage fees.
Dec. 1987	Submit annual update of Federal Interim Storage report to Congress.

### Coordinating Groups — Meeting Schedule

Coordinating Group	Meeting Date	Location
<b>1987</b>		
Performance Assessment/Safety Assessment	Aug. 4-5	Washington, DC
Technical Code	Sept. 2-3	Idaho Falls, ID
Environmental	Sept. 15-17	Washington, DC
Geosciences	Sept. 22-23	Washington, DC
States/Indian Tribes	Oct. 1	Dallas, TX
Transportation	Oct. 6-7	Denver, CO
Program Management	Oct. 15	Washington, DC
Quality Assurance	Oct. 21-22	Amarillo, TX
Technical Code	Nov. 11-12	Las Vegas, NV
Repository/Waste Package	Nov. 17-19	Washington, DC
Institutional/Socioeconomic	Dec. 1-3	Las Vegas, NV
<b>1988</b>		
Environmental	Jan. 12-14	Las Vegas, NV
Quality Assurance	Jan. 21	Las Vegas, NV
States/Tribes	Jan. 27	Seattle, WA
Performance Assessment/Safety Assessment	Feb. 2-3	Richland, WA
Technical Code	Feb. 17-18	Denver, CO
Institutional/Socioeconomic	Mar. 15-17	Amarillo, TX
Geosciences	Mar. 22-23	Amarillo, TX
Transportation	Mar. 29-30	Atlanta, GA
Program Management	Apr. 12	Washington, DC
Quality Assurance	Apr. 21	Albuquerque, NM
Environmental	May 10-12	Washington, DC
Repository/Waste Package	May 17-19	Las Vegas, NV
Technical Code	May 24-25	Seattle, WA
States/Tribes	May 26	Las Vegas, NV

**Congressional Testimony on Legislative Proposals Relating to Nuclear Waste - Excerpts  
from Presentation by Ben C. Rusche, Director, OCRWM, Before the Committee on  
Energy and Natural Resources, United States Senate**

**July 16, 1987**

*(continued from page 2)*

waste repository. While it is indeed true that certain elements would be removed and that volume reductions would provide some benefit, the main consideration in designing the repository is heat load which would be only minimally affected..."

**"S.1007 TO AMEND THE  
NUCLEAR WASTE  
POLICY ACT OF 1982**

Sponsor: Senator Hatfield

*Key Provisions:* Any State lying contiguous to a major river or waterway or above an underground aquifer, adjacent to, or above which a repository is proposed to be located would have all the same rights and opportunities to participate in the site selection, review, and approval process established by the NWPA as the State in which the repository is proposed to be located.

*Commentary:* At the time NWPA was under consideration, the rights of the States to participate in the siting process was given thorough consideration by the Congress. We believe that the balance that was struck is a good one.

DOE provides a variety of opportunities for the public and officials of nonhost States and Tribes to participate in implementation of the NWPA. Such opportunities have included public meetings with State, Tribal and local officials, public hearings on the environmental assessments, public briefings, meetings with Governors and key

officials, community briefings, and tours of DOE facilities..."

**"S.1141 NUCLEAR WASTE  
POLICY ACT OF 1987**

Sponsor: Senator Hecht

*Key Provisions:* The bill would amend the NWPA to require that spent fuel discharged from the reactor core must be stored for 50 years before it can be transported to a repository.

*Commentary:* This bill is similar to S.1211 in that it would impose a moratorium on disposal of nuclear waste in a repository in anticipation of eventual reprocessing. We can find no particular technical merit in the proposition... A substantial amount of the spent fuel projected to be emplaced in the first repository will already have been cooled for two to three decades. Therefore, relatively little additional cooling benefit would be gained from lengthening the temporary storage time to 50 years."

**"S.1266 HIGH-LEVEL  
RADIOACTIVE WASTE  
STORAGE ACT OF 1987**

Sponsors: Senators Evans,  
Murkowski, Hecht

*Key Provisions:* The bill would halt until the year 1998 all permanent repository activities (siting, construction, planning, and any other activity). In place of a repository, the bill would authorize construction of four regional MRS facilities... Each of the four States or Tribes agreeing to accept an MRS would receive \$100

million per year in payments from the Nuclear Waste Fund. States would be given authority to regulate transportation.

*Commentary:* The Department does not believe it would be in the national interest to suspend all work on the development of a permanent repository... Congress determined that the legislation (NWPA) should be carefully crafted to ensure that an MRS facility not become the defacto permanent repository. While we have obviously not developed complete cost information on this bill, it would appear to increase total system life-cycle costs by \$24 billion to a new level of \$56 billion. The cost increase derives principally from the \$100 million per year payments to each of the four States accepting an MRS. Finally, we do not believe that delegating to 50 States the authority to individually and separately regulate transportation of nuclear materials is consistent with the need for Federal pre-emption. The Federal Government must retain the ability to move these materials for reasons of national security and public safety."

"In conclusion, Mr. Chairman, we see no clear-cut value to these four bills and certainly see that some of the features are unnecessary or unwarranted. With the prospects for revisions in over 30 bills, we believe that great care must be taken to assure that net improvement is made to the NWPA if changes are made." ☆

### Other Program Items

#### Celebrating the Bicentennial of the Constitution at Hanford

The Constitution Bicentennial Commission is planning a national "Celebration of Citizenship" at 1 p.m. EDT on Sept. 16, 1987, to commemorate the signing of the Constitution. National leaders will join America's youth in the Pledge of Allegiance to the flag and the Preamble to the Constitution via live television and radio broadcast. Each Federal agency has been asked to participate.

The Richland Operations Office has planned a noteworthy series of activities

at the Hanford Site in celebration of the Bicentennial. Some of the events will involve only Hanford employees, while others will apply to the Tri-City community. The opening ceremonies of the annual Sagebrush Games, scheduled for Sept. 12, will start the week commemorating the Bicentennial. A series of events will be scheduled throughout the week culminating with a special community event entitled the "Constitutional Convention Revisited." At this event, it is planned that State Supreme Court Justice James Doliver will address the audience on the importance of the Constitution and the role it plays in our lives today. In

addition, a local acting group will perform a re-enactment of key portions of the debate on the Constitution that lead to its adoption.

Planning and implementation efforts have been and will continue to be conducted in coordination with the Washington State Centennial Commission in Olympia, WA; the National Commission on the Bicentennial in Washington, DC; the Benton/Franklin Centennial Planning Committee; and "Today's Constitution and You", an organization sponsored by the legal and educational community to educate Washington State citizens on the Bicentennial. ☆

### New Publications and Documents

#### *Information Services Directory, DOE/RW-0038, May 1987 (An Update of 8/86)*

This Directory, the first update since its issuance in August 1986, describes current program information sources; provides a directory of OCRWM and DOE technical information and an index of OCRWM Headquarters and Project Office contacts as well as State and Indian Tribe contacts; enumerates Congressional Committees and Subcommittees that have jurisdiction over various components of the OCRWM Program; and lists DOE reading rooms as well as information offices and the public libraries in affected States that are on one or more of OCRWM's mailing lists.

#### *Annual Capacity Report, DOE/RW-0146, June 1987*

This report provides the projected annual receiving capacity of the waste management system and the annual acceptance rankings of purchasers of disposal services for the first 10 years following the expected commencement of facility operations. The waste acceptance schedule used in this report presumes Congressional approval of DOE's plans to integrate an MRS facility into the waste management system and begin waste acceptance at the MRS facility in 1998.

Because acceptance capacity is limited in any given year, a ranking process is needed for allocating available capacity. This ranking process is based on an "oldest fuel first" priority as specified in the Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste. The report also presents a discussion of currently identified issues which may affect annual acceptance capacity, allocation of capacity, delivery schedules, and acceptance criteria.

#### *A Guide to OCRWM Transportation Program Responsibilities, DOE/RW-0148*

This fact sheet describes the transportation program responsibilities of the DOE Operations Offices located in Chicago, IL; Idaho Falls, ID; and Oak Ridge, TN. Also described are the responsibilities of Repository Project Offices and the Monitored Retrievable Storage Project Office.

#### *Congressional Testimony*

On June 29, 1987, Project Managers for each of the three candidate sites for the Nation's first geologic repository for spent fuel and high-level radioactive waste testified before the Subcommittee on Energy and Natural Resources of the United States Senate on site characterization activities. This testimony covered historical aspects of the site selection, site specific technical issues and how they will be addressed, and institutional interactions. Prior to their testimony, Stephen H. Kale, Associate Director, Office of Geologic Repositories, provided a brief summary of the status of work on the first repository.

**Selected Events Calendar**

- Aug. 4-5 Performance Assessment/Safety Assessment Coordinating Group Meeting, Washington, DC. Contact Norman Eisenberg (202) 586-1239.
- Aug. 24-28 International Conference on Nuclear Fuel Reprocessing and Waste Management (ANS/ENS), Paris, France. Contact (206) 526-3083.
- Aug. 26 DOE/NRC Meeting on Design Basis Accident Dose Limit for Repository Preclosure Analyses, Washington, DC. Contact Edward Regnier (202) 586-4959.
- Sept. 2-3 Technical Code Coordinating Group Meeting, Idaho Falls, ID. Contact Harold Steinberg (202) 586-5616.
- Sept. 15-17 Environmental Coordinating Group Meeting, Washington, D.C. Contact Jerry Parker (202) 586-5679.
- Sept. 22-23 Geosciences Coordinating Group Meeting, Washington, DC. Contact Don Alexander (202) 586-1238.
- Oct. 1 DOE meeting with States and Indian Tribes, Dallas, TX. Contact Judy Leahy (202) 586-8320.
- Oct. 6-7 Transportation Coordinating Group Meeting, Marriott Hotel Southeast, Denver, CO. Contact Susan Denny (202) 586-2439. For reservations contact Marriott at (303) 758-7000.
- Oct. 15 Project Management Coordinating Group Meeting, Washington, DC. Contact Richard Blaney (202) 586-9896.
- Oct. 21-22 Quality Assurance Coordinating Group Meeting, Amarillo, TX. Contact Karl Sommers (202) 586-1639.

*For details on DOE/NRC meetings call (1/800) 368-2235 for a recorded message. In the Washington, DC, area call 479-0487.*

*A telephone recording service has been established for the announcement of upcoming meetings related to the waste management program of the NRC. The number is (1/800) 368-5642, Ext. 79002. Washington, DC, area residents should call 427-9002.*

*For information on meetings and events occurring between issues of the OCRWM Bulletin use OCRWM INFOLINK, an electronic bulletin board that can be accessed through a standard computer communications capability on (202) 586-9359. The OCRWM Bulletin is now available through INFOLINK.* ☆