embarrassment and you can quote me on that."

In sum, by drawing on public interest law as an important new pool of talent, the Carter Administration may have gone a long way toward making this movement very much a part of the establishment. Some of the old-line members of the bar who still look askance at this new breed of practitioners may now begin to rethink their prejudices. (Most of the American bar seems already to look upon the emergence of public interest law as desirable and long overdue.) At

the same time, the appointment of a sizable and still growing number of these practitioners to important Administration jobs may lead to or be closely bound up with some significant changes in the content and emphasis of government policy.—LUTHER J. CARTER

Ocean Mining: Former Negotiator Now Lobbies for Kennecott

In New York this month, the Carter Administration is making its official debut at the 7-week 120-nation law of the sea conference, where efforts to draw up a new, comprehensive treaty for the oceans have bogged down on the issue of deep ocean mining.

But, while President Carter's new special representative to the conference, Elliot L. Richardson, attempts a fresh start, he will be shadowed by a holdover from the previous two administrations, Leigh S. Ratiner, the powerful former U.S. negotiator for Committee One—the section of the conference that deals with ocean mining—who has since become a congressional lobbyist for Kennecott Copper Corp. Kennecott has been the most active of the big U.S. mining companies in the sea law conference, and has never made any bones about its interest in investing possibly \$700 million in scooping the potato-sized nodules, rich in cobalt, nickel, copper, and manganese, from the deep ocean floor. Ratiner will be able to attend the New York meeting in a semiofficial capacity, since he has just been added to the 100-member public advisory committee which advises the U.S. delegation.

When he worked for the government, Ratiner was a respected but controversial figure. In the sea law negotiations and with members of Congress, he was sometimes credited with having more influence than some of Richardson's predecessors. Now, a number of people on Capitol Hill, in other mining companies, on the public advisory board, and even in the State Department, have expressed concern that Ratiner's switch from government negotiator to industry lobbyist could pose a problem for Richardson in New York, as well as in the Congress, which is considering

legislation that could affect the conference outcome. They fear that the opportunity is there for him to exploit his information and special contacts gained as a negotiator for Kennecott's gain.

Apparently, Ratiner's activities since leaving government are not a violation of the criminal conflict of interest laws. But such activities, while not uncommon among ex-government officials, fall in a gray area of professional ethics that congressional reformers feel should be restricted. Even the Carter Administration, in its recent statements on government ethics, cited the need for curbs on the "revolving door practice that has too often permitted former officials to exploit their government contacts for private gain."

Ratiner denies negotiating possible employment with Kennecott prior to his leaving government. Such a prior deal, under government rules, would have had to be reported to his superiors and checked with an ethics counselor. Ratiner says he resigned his job-he was Ocean Mining Administrator in the Department of the Interior as well as chief negotiator for Committee One-on 24 January. He did this, he says, partly because he was about to be fired as part of the incoming Interior Secretary's housecleaning, and partly because he had an offer from the Washington law firm of Dickstein, Shapiro, and Morin, which he had decided to accept. On 24 January, he says, he telephoned Marne Dubs, Kennecott's long-term representative on ocean mining matters, who said "Kennecott can use your services." Ratiner started work at the law firm the next day, and soon brought Kennecott in as a client. He says the firm has registered with Congress as a lobbyist for Kennecott. Dubs, Ratiner's principal contact at Kennecott, confirmed this account. David Shapiro, of Ratiner's law firm, stated that Ratiner's activities for Kennecott do not violate Section 207 of Title 18 of the U.S. Code which requires a grace period of 1 year before an ex-official can appear before certain federal bodies on the same "particular matter" in which he "participated personally and substantially" while a government employee.

Shapiro also denies that Ratiner is violating the Caesar's wife canon of the American Bar Association's code of ethics, barring the appearance of impropriety, and whose disciplinary rule reads: "A lawyer shall not accept private employment in a matter in which he had substantial responsibility while he was a public employee." Shapiro says, "We checked it out from stem to stern and found nothing improper."

But others are not so sure. For example, Fred Grabowsky, bar counsel of the District of Columbia bar disciplinary division, while declining to comment on Ratiner's case, stated, "If what he is involved with is the same matter that he had substantial responsibility concerning as a government employee, it would have the appearance of impropriety."

Since becoming a Kennecott lobbyist Ratiner has been testifying before Congress, offering background briefings to Congress and to the State Department, and has tried to attend an international deep-sea mining negotiation in Genevaactivities that were part of his job when he was in government. In a lengthy interview, Ratiner discussed these activities, maintaining throughout that there was nothing improper in his situation. "I have been honest and loyal and smart,' he said at one point. "I have a good reputation. . . . I have gone out of my way to make sure there is no confusion about who I work for."

Indeed, most of the people interviewed—even those critical of Ratiner's tactics—confirmed that during his service at numerous government agencies he had a reputation for hard work, command of the complexities of his subject, and loyalty to whichever agency he was working for at the time.

But some people have wondered whether Ratiner's recent actions and statements have muddied the waters for Richardson. "I would not do what Leigh is doing," says Melvin Conant, Ratiner's boss when he worked on ocean mining matters for the Federal Energy Administration. And, says Stuart French, who was the Department of Defense's expert on the sea law conference until very recently, "You have in the law that a man can't serve two masters. What master is he serving in his capacity as a public adviser? What capacity is he serving as counsel to Kennecott? . . . It obviously could be a problem of how objective Ratiner can be in the light of all these circumstances."

Ratiner already appears to have disclosed information that he presumably acquired as a government negotiator in a way that could benefit the ocean mining industry. The industry has been arguing that it needs a law to guarantee its deep seabed investments in the event that the conference fails or the treaty confiscates, in some way, the companies' assets and their technology. On 26 April, before a subcommittee of the House Science and Technology Committee, Ratiner testified that "leading Third World negotiators" had secretly pledged to put grandfather rights into the treaty, but that they could not "go public right now" with such a pledge because of the political sensitivities of the rest of the Third World.

A Senate staffer says that this revelation could spur Congress to pass the protective legislation sought by the mining industry because it might "undermine such supposedly secret agreements in the conference itself."

Frank Hodsell, a Richardson lieutenant who is working on the ocean mining negotiation, declined to comment on whether there is such a deal with the Third World to get grandfather rights in the treaty. "Talking about deals—theoretical or actual ones—in public does not increase the chances of their being kept," Hodsell said.

Ratiner's other activities have also aroused some criticism because of the ambiguity of whether he is speaking for Kennecott, for the mining industry, or whether as a dispassionate former government negotiator. Hodsell says that Ratiner has given the Richardson group several long briefings on the status of the negotiations and continues to be in touch with the staff and with Richardson himself

One problem, says DOD's French, is "if I were a competing mining company, I'd be hopping mad that this gives Ken-

necott a competitive edge." In fact, a spokesman for another ocean mining group, Richard Greenwald of Deepsea Ventures, Inc., says Ratiner's work for Kennecott gives that company a competitive edge. "I am uncomfortable with the arrangement," he says. "I am uncomfortable when he appears to speak for industry because I don't know what he perceives his function to be or what other people perceive his function to be."

Ratiner's appearances before Congress, where he often urges passage of the Murphy-Breaux bill which would guarantee the industry's investments, have been ambiguous in this regard. During the 3-hour House science and technology subcommittee appearance, for example, Ratiner at no time mentioned his role with Kennecott, although he appeared with Dubs, Greenwald, and other industry witnesses. He was identified on the witness list only as with the law firm and as a former negotiator.

Earlier, in April, House staffers received an invitation to an ocean miningocean law briefing from John Breaux (D-La.) saying "Mr. Leigh Ratiner, former Committee One negotiator for the U.N. law of the sea conference, will be available for any questions." But the session was a Kennecott slide show by Dubs, at which an alleged spy for another company was ushered from the room. Only when Ratiner was asked by a staffer for Berkley Bedell (D-Iowa) did he state he was counsel to Kennecott. The staffer later told Science, "I thought that was outrageous. It was so deceptive." Ratiner says he was not responsible for the way the written invitation to the session was worded.

Ratiner also flew to Geneva in March, where the Richardson group was meeting with foreign delegates to try to break the deadlock on ocean mining. Both the State Department and Kennecott's Dubs deny they instructed Ratiner to go there. But while in Geneva, Ratiner says that he met socially with "close friends" who were foreign delegates to the meeting. Ratiner also confirmed widespread accounts that he had asked to be allowed into the meeting and that Richardson told him not to enter.

If Ratiner's status was unclear in Geneva, it will be no less so, it seems, in New York. Dubs, a long-term member of the public advisory committee, says, "I will be the only one speaking for Kennecott Copper" in New York. On the other hand, Richardson, reportedly concerned about the appearance of a conflict of interest, was told by the State Department's legal adviser that no federal law

would be violated if Ratiner were put on the advisory committee. Richardson did so, according to informed sources, so he could give Ratiner a confidential clearance and hence consult with him about the negotiations. But whether Ratiner will also be allowed to socialize with foreign delegates, or sit in on the negotiations—to speak for Richardson, Kennecott, the industry, or whomever—is not clear.—Deborah Shapley

RECENT DEATHS

Daniel E. Berlyne, 52; professor of psychology, University of Toronto; 2 November.

Robert M. Burns, 86; chemist and retired director of chemical and metallurgical research, Bell Laboratories; 14 November.

William K. Calhoun, 54; biochemist and chief, nutrition group, Food Sciences Laboratory, U.S. Army Natick Research and Development Command; 31 October.

Mervin S. Coover, 85; dean emeritus, College of Engineering, Iowa State University; 24 November.

Helen T. Gaige, 86; former curator of amphibians, reptiles and amphibians division, University of Michigan Museum of Zoology; 24 October.

Frederick McM. Gaige, 86; former director, University of Michigan Museum of Zoology; 20 October.

Sidney Laskin, 57; professor of environmental medicine, New York University; 28 November.

Trofim D. Lysenko, 78; agriculturist and former president, Soviet Academy of Agricultural Sciences; 20 November.

Jesse F. McClendon, 95; retired research professor of physiology, Hahnemann Medical College; 21 November.

Theodor Rosebury, 72; professor emeritus of bacteriology, Washington University; 25 November.

Clayton O. Rost, 90; professor emeritus of soil chemistry, University of Minnesota; 23 October.

Theodore Shedlovsky, 78; professor emeritus of physical chemistry, Rockefeller University; 5 November.

Samuel Silver, 61; professor of engineering science, University of California, Berkeley; 5 November.

Erratum. According to the latest information the publisher has provided to Science the current price of The Nervous System (Donald B. Tower, Ed.; Raven Press), reviewed by John G. Hildebrand, 22 April 1977, p. 419, is \$15 a volume, rather than \$25 a volume and \$65 for the three-volume set, the prices listed at the head of the review.