Nearby is the partly finished CGN 41 *Arkansas*, swarming with yellow-hatted workmen even though the court test of the contract options under which the yard must work is not scheduled until February 1979.

Looming up behind these ships are the vast orange and black hulls of the liquified natural gas tankers that the yard is mass-producing for the El Paso Natural Gas Company. Those giant, bulbous ships are as different from the delicate, hand-crafted Navy vessels as a basketball is from a Fabergé egg. Newport News, like other yards, invested in mass production techniques in the early 1970's to be ready for a merchant marine tanker boom that never came; but the potential of the tools remains impressive. The yard has an 11-acre building, where automatic tools suspended from the ceiling slice and weld steel according to preset computer plans. Inside, a workman, with a shoe box–sized portable set of controls, manipulates a giant crane that lifts a 10-ton section like a piece of butter. The identical sections, each of which is large enough to hold a five-story office building, are hauled to drydocks so long that two of the liquified gas tankers can be assembled in a single "graving" dock.

Ideally, Newport News officials say, the shipbuilding industry would like to stop building Navy ships "stick by stick like the Vikings" as they say they do now. After all, a subsidiary yard of the company stamped out 243 Liberty-style ships in World War II, or an average production rate of four a month. If the Navy decided what it wanted was quantities of ships, they say, it would be no trick to turn them out; what hampers efficient production, they say, is the hand crafting, constantly changing, "stick by stick" approach the Navy insists upon.

Round Another Helix in the Legislative Helter-Skelter

The latest twist in Congress's current attempts to draw up a recombinant DNA bill is a move which means that there may be no bill at all. According to his staff aides, Senator Edward Kennedy has now decided that no bill is necessary, a sentiment which is the polar opposite of his position last year but identical to that of the year before.

No one is predicting where Kennedy, or at least his staff aides, will be next week; but on present showing there may perhaps—but not definitely—be no Senate action this session and therefore no legislation at all.

The prospect is welcomed by scientists who oppose government regulation of research in principle, but is causing concern to those who hoped through legislation to preempt state and local authorities from writing rules more restrictive than the existing National Institutes of Health guidelines.

Meanwhile at a meeting last month the NIH committee that wrote the guidelines approved several important changes, including a proposal to delegate authority for initial approval of recombinant DNA experiments from the NIH to institutional committees. Experiments would still be reviewed by NIH, but could begin as soon as local approval was obtained, cutting bureaucratic delay by some 3 to 4 months. The NIH committee also proposed reducing experiments with viruses to much lower containment levels.

If Congress fails to pass a bill, the Administration will then have to choose between continuing the present approach of voluntary adherence to the NIH guidelines, and invoking existing legal authority to give the guidelines the force of legislation. Each choice has its own advantages and difficulties.

It is far too early, however, to rule out the possibility of a Senate bill. The latest move by Kennedy's staff aides is not as inconsistent as it may seem. Although it is ascribed by aides to a change in Kennedy's perception of the hazards over the last 10 months, Kennedy has always seemed to be less interested in the possible risks of the research than in the principle of allowing the public and local authorities a voice in decisions about research. The bill pending in the House, which also has strong general support from certain senators, would preempt that role. Probably not having the votes to defeat preemption in the Senate, Kennedy's staff may hope to obtain the same end by inaction.

Those who favor preemption, such as the NIH and the American Society of Microbiologists, may therefore press for a Senate bill to be passed. Other interested parties, such as Senator Adlai Stevenson, may also favor a Senate bill if the Administration declines to use existing powers.

Where matters now stand is that, at a meeting of staff aides of the Senate human resources committee on 1 May, it was decided that Kennedy would write to HEW Secretary Joseph Califano to the effect that legislation seemed unnecessary if the Administration were prepared to use already existing powers.

Califano's response is hard to predict because the thought of no legislation at all is too new for people to have decided what they would like to do instead. Nor is the Administration all of one mind. The NIH favors strong preemption, believing that a law without preemption would be the worst of both worlds. For this, among other reasons, the agency is lukewarm toward invoking existing authorities, such as Section 361 of the Public Health Service Act, which gives the Secretary of HEW sweeping powers to control communicable diseases but not to preempt state governments.

Other parts of the Administration, however, such as the White House staff, are not so hot for preemption and could live with Section 361. As the result of an internal compromise, NIH director Donald Fredrickson recently testified in support of a weaker form of preemption than that stipulated in the House bill.

"It is our judgment that many aspects we desire could be achieved under Section 361," says Gilbert Omenn, a staff member of the President's science adviser's office. But he also notes that voluntary compliance has worked well.

Kennedy's letter to Califano will probably ask, among other things, if Section 361 is an appropriate vehicle for regulating recombinant DNA. "Our response will be that simple legislation is required, and that 361 is not an appropriate statute," says an NIH official. In the NIH view, the section does not explicitly offer preemption (although some legal opinion holds that it would do so in practice), use of the statute might imply that recombinant DNA could give rise to communicable disease, and in any case Congress should carefully frame a special new law if it wishes to take the step of regulating biological research.

The problem of how to govern recombinant DNA research is as far from certain solution as ever, but the present range of likely outcomes is generally much less restrictive than those prevailing last year.—N.W.

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