EPA's odd couple: Lead and chemical rules

New regulatory proposals drafted by the Environmental Protection Agency — for lead in gasoline and for premarket hazard assessments of new chemicals — are sending out conflicting signals about national environmental policy. In particular, the Reagan administration seems to be reevaluating, at least on a case-by-case basis, its stated preference for "letting the marketplace decide."

Consider the proposed easement of EPA's lead-phasedown regulations (SN: 2/27/82, p. 132). Over the past week, EPA officials have let it be known that the agency has decided — contrary to earlier indications — that it will strengthen, not relax, its rules for lead in gasoline. Apparently bending to pressure exerted by scientists at public hearings in April (SN: 4/24/82, p. 278), the agency now concedes that health risks indeed justify maintaining a tough regulatory posture on leaded gasoline, the largest contributor of airborne lead.

EPA's revised proposal, expected to appear soon in the FEDERAL REGISTER, would call for:

- Limiting lead in gasoline to 1.1 grams per gallon of leaded fuel. Formerly, refiners were permitted to use an average of 0.5 g/gal — a figure computed by combining a refinery's output of both leaded and unleaded grades. As a result, leaded grades have carried as much as 2 g/gal lead if a refiner's unleaded output accounted for most of its production.
- Changing the definition of small refiner.
- Permitting small refiners to use 2.5 g/gal lead in leaded grades.
- Limiting small-refiner exemptions only to those firms operating before Oct. 1, 1976. This would reduce from 159 to 74 the number of qualifying firms, and in so doing reduce from 10 percent to 3.5 percent the total gasoline production involved.
- No longer exempting imported gasoline from regulations limiting lead.
- Allowing firms to sell rights to lead use if they produce leaded grades beneath the new 1.1 g/gal ceiling. Firms wishing to buy rights to exceed the ceiling could do so only if the total leaded gasoline produced by both firms contained an average 1.1 g/gal lead or less.

"On the whole, these are positive changes," notes Bambi Batts Young, director of the National Coalition for Lead Control (with 51 member organizations). But there are some problems, she contends, as with the last provision. Allowing refiners that control lead best to trade away part of their lead-use rights could freeze the lead-use situation to where it is today. Instead, she says, the goal should be to limit lead in gasoline as much as possible — ideally to ban it. But there's another problem, Young says: "If expected advances in emission-control technology or related changes should allow leaded gas to hold a greater share of the market than it does today, then the proposed rules could actually increase lead emissions, while the present regulations would keep them constant.

Lead is a unique issue, says Ellen Silbergeld, senior scientist with the Environmental Defense Fund, because both the medical establishment and a major share of the regulated industry have joined in opposing the relaxation of standards EPA sought. The agency's proposal to ease requirements for premanufacture screening of new chemicals is a notable example of intended rules lacking this kind of broad-based opposition.

In response to a chemical industry request, EPA has proposed exempting from its 90-day premanufacturing review process nearly half of roughly 1,000 new chemicals developed each year, or those the agency considers to be "low risk." Companies instead would have only to submit to EPA 14 days before they planned to manufacture new chemicals a notice that contained an assessment of the chemicals' hazards as determined by the industry's own "qualified expert."

The proposed categories of exemption are:

- Chemicals produced in "low volume," defined as 22,000 pounds per year or less (and no review at all for those produced at 2,200 pounds per year or less).
- Some polymers (chains of molecules) the agency considers "not likely to be absorbed into living tissue."
- Chemical "intermediates," those used only to produce other chemicals, and at only one location.

EPA Assistant Administrator John A. Todhunter says that the proposal would not only ease regulatory burdens and stimulate chemical innovation, but also would "allow EPA to concentrate its resources on [hazard assessments of] new chemicals of potential concern."

Environmentalists, however, are worried that the exemptions are so broad that they may result in dangerous chemicals entering the market. "It's absolutely critical to review these [new products] on a chemical-by-chemical basis," says Silbergeld, who has spent 10 years doing research in toxicology. One cannot simply look at a chemical, she says, and decide whether or not it is hazardous based on its structural similarity to nonhazardous chemicals. She also notes that EPA would rely on information provided by the company's paid expert, to whom the agency gives no guidelines, and in 14 days could only complete superficial analyses at best.

An additional concern is the low-volume exemption, which should be "substantially lower" than the 22,000 pounds per year proposed, according to Frederica Perera, senior staff scientist with the Natural Resources Defense Council. "Volume is not a good assessment of toxicity or risk," she says. And, Silbergeld adds, the proposed exemptions, as well as the "inadequate job" EPA is doing with chemicals it is not exempting, are "contrary to the intent of the Toxic Substances Control Act" — legislation that established the current screening program. —*J. Raloff, L. Tangley*

Soviet space station down after 58 months

The most lived-in structure yet sent into space met its end on July 29 after nearly half a decade in orbit, when the Soviet Salyut 6 space station reentered the earth's atmosphere and burned up. Launched on Sept. 29, 1977, it was visited by 16 crews of cosmonauts on missions lasting from a few days to more than six months.

In addition, a dozen unmanned Progress capsules were sent to couple automatically with the station, bearing supplies and fuel, as were a number of other robot vehicles. One of these, Cosmos 1,267, was a huge "building-block" module that nearly doubled the structure's overall size when it docked with Salyut 6 two years ago. It was still there when the station came down.

The reentry was a controlled one, according to Tass, the official Soviet news agency. Retro-rocket firings were used to place the station on a descent trajectory that led to atmospheric entry at a "preset district over the Pacific." Tass did not say whether any debris reached the surface.

The two- and three-man crews sent to Salyut 6, although mostly Russians, included cosmonauts from Poland, Czechoslovakia, East Germany, Bulgaria, Hungary, Vietnam and Mongolia (each in the company of a Russian colleague). The last crew left the station about 14 months ago.

Now in orbit is Salyut 7, which was launched on April 19 and occupied about a month later by its first crew, a pair of Russian cosmonauts who are still aboard. Later, they were joined for a week by a three-man crew that included the first cosmonaut from France.

The only U.S. space station, Skylab, was aloft for a longer period than Salyut 6 — from May 14, 1973, to July 11, 1979, but only three crews used it. The final Skylab astronaut trio spent 84 days aboard, departing on Feb. 8, 1974. They left behind a "revisit bag" containing samples of food, film, paper, clothing, electronic equipment and other gear, in case some subsequent crew should be able to retrieve it for studies of long-term exposure to the space-station environment. But Skylab went unvisited for its remaining five years and five months. Proposals for a next-generation U.S. space station remain controversial.

—*J. Eberhart*