PRAISE FOR OBAMA’S RULES REVIEW

FEDERAL POLICY: Industry endorses President’s directive on federal regulations

Obama has ordered federal agencies to review their regulations.

INDUSTRY GROUPS are praising President Barack Obama for issuing a directive to agencies last week to weed out or update obsolete regulations and ensure that federal rules’ benefits justify their costs. Obama says this strategy will support economic growth and boost employment while protecting Americans’ safety and health.

“President Obama is acting in the nation’s best interests,” says Charles T. Drevna, president of the trade group National Petrochemical & Refiners Association. “By removing unnecessary regulatory burdens, the President can free up the mighty engine of our free-enterprise system to create jobs and bring a return to prosperity.”

Lawrence D. Sloan, president of the Society of Chemical Manufacturers & Affiliates, endorsed what he described as “President Obama’s call to review federal regulations that stifle job creation and make our country less competitive.” SOCMA is a trade group that represents mainly small and mid-sized chemical companies.

Obama’s move comes as Republicans in the House of Representatives are launching investigations into his Administration’s regulations, which they contend kill jobs. Spearheading that effort is Rep. Darrell E. Issa (R-Calif.), chairman of the House Oversight & Government Reform Committee. Issa will hold hearings to air gripes from industry officials about federal rules.

The President’s directive also applies to regulations under development, including EPA’s plans to regulate carbon dioxide and other greenhouse gas emissions.

The American Chemistry Council and the National Association of Manufacturers say Obama’s order could portend significant changes to a proposed Clean Air Act regulation that is controversial. That pending rule would clamp down on toxic air pollution from industrial boilers. These industry groups, backed by members of Congress, claim the proposal would jeopardize jobs. EPA says it is revamping the proposal.

Obama’s directive also has critics. “Industry has long claimed that there are burdensome, useless regulations on the books, but has time and again failed to present a convincing case,” says Rena I. Steinzor, president of the Center for Progressive Reform, a left-leaning think tank.

The review of regulations at best will waste resources at budget-strapped agencies and at worst will eliminate important protections, she says. —CHERYL HOGUE

GIVING DNA A GOOD YANK

BIOPHYSICS: Find adds fodder to question about nature of overextended DNA

THERE’S MORE THAN one way to overstretch DNA, a new experiment suggests (J. Am. Chem. Soc., DOI: 10.1021/ja108952v). The finding recasts a 15-year-old debate on double-stranded DNA’s mechanical properties and might make it easier to calibrate instruments that measure small forces.

DNA experiences many forces during transcription and other biological events, but one particular force has become the subject of scientific fascination. “If you pull really hard on DNA, you think it’s about to break. But at 65 piconewtons of force, something amazing happens—it almost doubles in length,” says Thomas T. Perkins of JILA, a precision physics lab run jointly by the National Institute of Standards & Technology (NIST) and the University of Colorado, Boulder. A single piconewton is approximately the force exerted by the mass of 100 Escherichia coli bacteria, Perkins says.

What DNA looks like in that stretched-out, or “overstretched,” state is controversial, but several teams’ work suggests that nicks or breaks in the DNA always make the double-stranded molecule peel open to single-stranded DNA, Perkins says.

Perkins’ postdoctoral colleague, D. Hern Paik, tested that hypothesis with a piece of DNA containing no nicks or free ends and designed to freely rotate, an important characteristic for probing stretching in the desired force range. The pair’s results suggest that overstretched DNA can form in other ways than just peeling, Perkins says.

Researchers don’t know whether DNA experiences stretching forces of this magnitude in living things. But because the peculiar overstretches happens at a characteristic force, NIST is pursuing a piconewton-scale force standard based on DNA that could be used to calibrate instruments that measure all kinds of biological and chemical forces, Perkins says.

This study “may explain why it has been so difficult to unequivocally determine the structure of overstretched DNA,” says Mark C. Williams, a biophysicist at Northeastern University. —CARMEN DRAHL

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