

## Acid Precipitation

It's called acid rain, but the problem is bigger than that. Acid can fall to earth as rain or snow, fog or mist, or on fine particles of dust.

The source of the acid is sulfur dioxide and nitrogen oxides, which react with oxygen and water in the atmosphere to form sulfuric and nitric acids. The oxides, in turn, come from industry and automobiles, especially coal-burning power plants not equipped with the proper controls.

The acid does not respect national boundaries. Copper smelters in Mexico drop acid rain on the Rockies. Power plants in Indiana and Ohio send millions of tons into Canada. Sulfur dioxide from Ontario poisons lakes in Vermont.

Acid rain kills forests and lakes. It corrodes buildings. Acid rain is damaging the tourist, hardwood forest and sugar economies of rural Quebec and the New England states. Recent evidence indicates that it may be a leading cause of lung disease, contributing to 50,000 premature deaths in the United States and Canada every year.

Acid rain has caused significant tension between our two countries. The U.S. government points to the Inco nickel smelter in Sudbury, Ontario, as the largest single source of sulfur dioxide in North America. Canadians counter that Inco's emissions are dwarfed by those from coal-fired power plants in the U.S. Midwest. In addition, Inco has made major efforts to fit pollution controls on its equipment, in part through the pressure of USWA Local Union 6500. But many American power plants have been exempt from similar requirements, although that may change with the new Clean Air Act. Ironically, the widespread nature of acid rain results from an earlier misguided attempt at pollution control -- the smokestack. A hundred years ago, smokestacks were mostly used to create greater draft for furnaces.

Air pollution made the areas around smelters and steel mills into smoky infernos, but the problem remained local. Forty years ago, however, companies began to build very tall stacks in order to inject the pollutants high in the air, so as to dilute them to "acceptable" levels. In Sudbury, Inco built the tallest smokestack in the world as its solution to an air pollution problem that had turned the surrounding area into a virtual moonscape. It worked -- locally. But it is those same pollutants that turn to acid, eventually damaging forests and lakes throughout the Northeast. Acid rain teaches an important lesson -- that the only real solution is controlling pollution at its source.