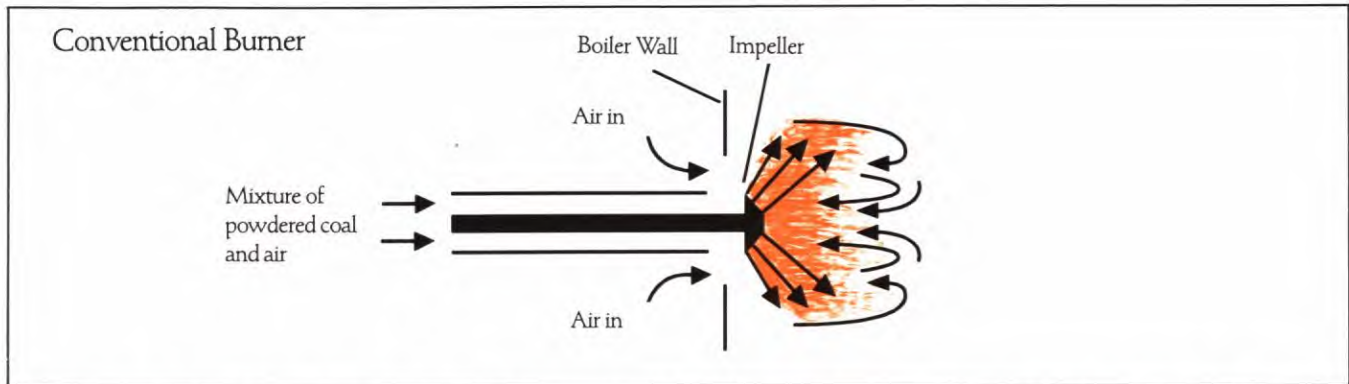


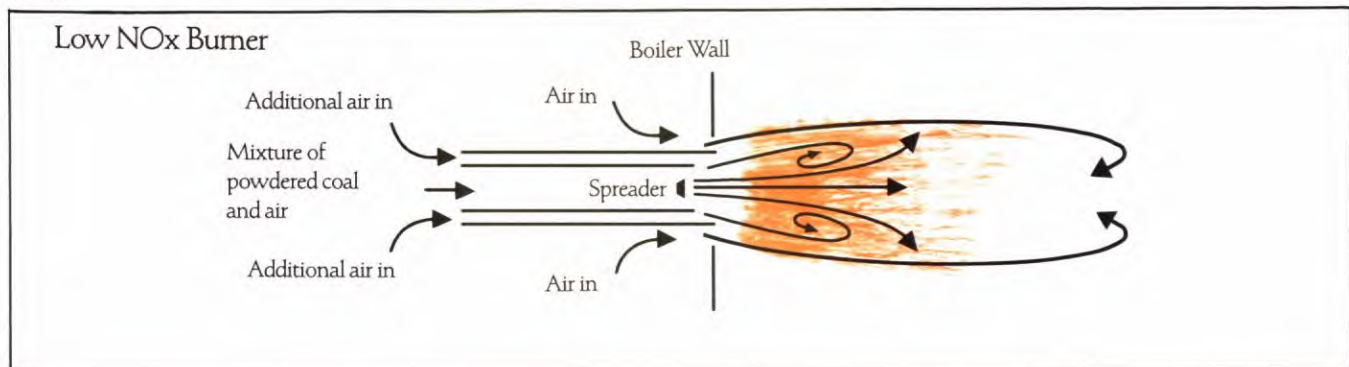
Special burners create less nitrogen oxides



Large impeller in conventional burner forces the coal/air mixture to spread out quickly. This results in a short, intensely hot flame. The high flame temperature increases the production of nitrogen oxides.

New burner replaces the normal burner's large impeller with a small spreader. It also has an additional source of combustion air. The result is a much longer flame that burns cooler and reduces

the production of nitrogen oxides by 35%. Ontario Hydro has spent \$13 million to modify all 320 burners at its largest coal-fired generating station at Nanticoke.



What is Ontario Hydro doing about it?

Ontario Hydro is reducing its share of acid rain by using as much nuclear and hydraulic generation as possible and burning coal that contains less sulphur.

We have also modified all 320 burners on our Nanticoke coal-fired generating station to reduce the production of nitrogen oxides. This was originally done to make the gases from the Nanticoke station less noticeable. However, it has had the desirable side-effect of reducing emissions of nitrogen oxides by 35 per cent.

Finally, because Ontario is located far from the coal mines in Canada and the United States, Ontario Hydro has for many years purchased only washed coal. The washing process removes dirt and rock that get mixed with the coal during mining. The dirt and rock are heavy, and the shipping cost of coal is calculated by weight. So Hydro has saved a consid-

erable amount over the years by not transporting this extra dirt and rock.

The washing process also removes iron pyrite from the coal, and iron pyrite is rich in sulphur. In this way, washing further reduces the sulphur content of the coal and reduces sulphur oxides.

Ontario Hydro has reduced acid gas emissions from a peak of 531,000 tonnes in 1982 to 381,000 tonnes in 1988. This is well within current emission limits set by the provincial government and has been accomplished despite the fact that demand for electricity in Ontario has increased by more than 20 per cent over the same period.

Emissions to be cut 60%

Ontario Hydro will continue to reduce its acid gas emissions so that in 1994 it can meet the new provincial regulations that

will limit its total acid gas emissions to 215,000 tonnes per year — 60 per cent below our 1982 peak.

To accomplish this, Ontario Hydro will rely on the four large nuclear reactors that we are now building at our Darlington Nuclear Generating Station to replace a significant amount of energy from our coal-fired stations.

In addition, we will increase our purchases of low-sulphur coal and install flue gas conditioning equipment that will enable us to burn this extra low-sulphur coal (see diagram). We will also pursue programs to manage the growth in the demand for electricity. Finally, Ontario Hydro will install scrubbers on some of its largest coal-fired generating units.