From the Assistant Secretary's Desk

In 2010, for the first time ever, there were more fatal rib falls in underground coal mines in the U.S. than there were fatal roof falls. While the number of roof fall fatalities has gone down by about 62% since the 1990's (from an average of 9.6 per year in the 1990's to 3.6 per year during the last five years), the incidence of rib fall fatalities has remained approximately constant (about 1.5 per year). In addition, injury incidents associated with pillar rib failure have been steady at approximately 100 per year. The persistence of rib fall injuries, underlined by the recent increase in rib fall fatalities, led MSHA to investigate coal rib failure parameters and methods available to mitigate rib failure in U.S. underground coal mines.

This year, we at MSHA will focus our efforts on improved mine rib control during our annual Preventive Roof Rib Outreach Program (PROP). Roof control in an underground mine involves securing the top as well as the sides of underground travelways, or the walls, which in underground mines, are referred to as the "ribs." MSHA needs to make the mining community aware that rib failures pose just as much of a danger in the underground mine as the more typical roof fall accident. To that end, MSHA will distribute key safety information regarding mine rib control to both miners and mine operators in coming weeks.

A detailed study of the 22 fatal rib fall fatal incidents that have occurred since 1995 (excluding coal burst incidents) indicates that the two most important risk factors are the mining height and the depth of cover. Other risk factors include multiple seam interactions, rock partings in the seam, and retreat mining. The accident history reveals that joints or slickenside geologic features that dismember the rib increase the hazard. Approximately three-quarters of the rib fatality victims were roof bolting machine operators and continuous mining machine operators.

We have developed a brochure, "*Coal Mine Rib Control for Mine Operators*," which includes the above information and points out key trends in recent roof and rib accidents and also provides safety advice and tips for mine operators to consider in maintaining proper roof and rib control. Inspectors will also distribute informational posters to underground mines which identify rib control problems and list several possible solutions. The brochure, posters, and other useful information have been posted on a single-source web page here on our website at www.msha.gov.