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Date: 7/26/2005 2:19:21 PM
Subject: RELEASE FROM THE WYOMING DEPARTMENT OF HEALTH

July 26, 2005

FOR IMMEDIATE RELEASE

Wyoming Department of Health Director Warns of Air Quality Conditions During Wildfires

CHEYENNE - Wyoming has entered a very dry period of the summer and wildfire is already present in Northeast Wyoming.

Wyoming Department of Health director, Dr. Brent Sherard, urged people today to take health precautions when in the vicinity of a blaze - not just regarding the fire danger but also the harmful effects of smoke inhalation.

"Many people, particularly those with allergies or lung disease are susceptible to the ill effects of wildfire smoke," he said. "It's important that those at-risk take the proper steps, such as remaining indoors and away from the air pollutants."

Sherard said that the effects of smoke run from irritation of the eyes and respiratory tract to more serious disorders including asthma, bronchitis, reduced lung function and premature death. Studies indicate that fine particulate matter is linked (alone or with other pollutants) with a number of significant respiratory and cardiovascular-related effects, including increased mortality and aggravation of existing respiratory and cardiovascular disease.

In addition, airborne particles are respiratory irritants, and laboratory studies show that high concentrations of particulate matter cause persistent cough, phlegm, wheezing and physical discomfort in breathing. Particulate matter can also alter the body's immune system and affect removal of foreign materials from the lung, like pollen and bacteria.

Sherard said that most healthy adults recover quickly from smoke exposures and will not suffer long-term consequences. However, certain sensitive populations may experience more severe acute and chronic symptoms from smoke exposure - such as people with existing respiratory and cardiovascular disease, individuals with undiagnosed respiratory and cardiovascular disease, the elderly, children, and smokers.

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Guide to visibility ranges and air quality conditions:

Good :
Visibility Ranges - 10 miles and up

Moderate:
Visibility ranges - 4 to 9 miles
Health Effects - possibility of aggravation of heart or lung disease among persons with cardiopulmonary disease and the elderly.
Cautionary statement - extremely sensitive people should consider limiting outdoor activity.

Unhealthy for sensitive groups:
Visibility Ranges - 2.5 to 3 miles
Health Effects - increasing likelihood of increased respiratory symptoms in children and adults, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.

Cautionary statement - People with respiratory or heart disease, the elderly, and children should limit prolonged exertion.

Unhealthy:

Visibility ranges - 1.25 to 2 miles

Health effects - increasing respiratory symptoms in children and adults, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.

Cautionary statement - people with respiratory or heart disease, the elderly, and children should avoid prolonged exertion and everyone else should limit prolonged exertion.

Very Unhealthy:

Visibility Ranges - 1 mile

Health effects - significant increase in respiratory symptoms in children and adults, aggravation of heart disease and premature mortality in persons with cardiopulmonary disease and the elderly.

Cautionary statement - people with respiratory or heart disease, the elderly and children should avoid any outdoor activity and everyone else should avoid prolonged exertion.

Hazardous:

Visibility ranges - .75 miles or less

Health effects - serious risk of respiratory symptoms in children and adults, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.

Cautionary statements - everyone should avoid any outdoor exertion; people with respiratory or heart disease, the elderly and children should remain indoors.

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Procedure for Making Personal Observation to Determine Smoke Concentrations

- Face away from the sun.
- Determine the limit of your visibility range by looking for targets at known distances (miles). Visible range is that point at which even the high contrast objects totally disappear.
- After determining visibility in miles, use the chart to determine health effect and appropriate cautionary statement.

Smoke is made up primarily of carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons and other organics, nitrogen oxides and trace minerals. Since smoke is made up of these particles, it is an excellent scatterer of light. This makes judging the concentrations much easier due to the visibility ranges.

"When should we evacuate?," is a commonly asked question in the occurrence of wildfires and smoke invasion. The most common call for evacuation is in the case of direct threat of wildfire instead of smoke. In any event, persons that are vulnerable to the effects of smoke should consider evacuation if the concentrations are high enough.

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For more information, contact:

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