

ExxonMobil

neighbor to neighbor



## What are those clouds?

### WATER VAPOR

Our neighbors sometimes see "clouds" over the ExxonMobil Complex and wonder what they are made of and how they are formed.

When you see "clouds" billowing over our facilities, you are looking at water vapor. Especially on cold, clear mornings, water vapor condenses and is very visible -- that's why you can "see your breath" on cold days.

### COOLING TOWERS

Water evaporates from several parts of the complex, such as from the cooling towers. Cooling towers conserve energy by evaporating water to cool it back down for recycling.

This process is environmentally friendly since it reduces the fresh water we take in from the Mississippi River and allows us to release cool water back to the river rather than hot water.

### THE WEATHER IS A FACTOR

The look of a "cloud" varies based on the temperature of the water vapor and the weather outside.

When the warm vapor meets cooler air, it condenses and forms "clouds" -- the same way natural clouds are formed.

The temperature and humidity of the day effect the way the water vapor evaporates.

On a humid or rainy day, there is already so much water in the air that it cannot absorb the water vapor "clouds" very quickly. Therefore, the "clouds" are darker and heavier looking on those days.

Water vapor clouds often appear white and fluffy on sunny days, just as natural clouds do. But if the sun is directly behind a water vapor cloud, it can appear dark, just as a thundercloud does when it is between you and the sun.



The largest plume rises above the wet gas scrubber where water "scrubs" out dust-like particles, sulfur dioxide and ammonia.