

**POWER COMMITTEE
of the
Missouri-Arkansas River Basins Associations**

November 2, 2006

Committee:

Morris Kay
Chairman

Bob Kimball
Vice-Chairman

Jack Daily
Executive Director

Congressman
Larry Winn

Pat Cassidy

Fred Lutz

Karin Jacoby

Paul McKie

Art Stevens

Cruise Palmer

Joe Dick

Darrell Dorsey

Gerry Diddle

Tom Lutz

Tom Schrempp

Dan Fuhrman

Samuel Burr Sifers

This paper is an expression of my concern about the management and operation of the Missouri River by the United States Corps of Engineers for the past several years. This Power Committee wrote a letter to General Martin on September 22, 2006, expressing the same concern. As of this date, we have not received any kind of acknowledgement or comment. This lack of action speaks clearly to the attitude of the US COE, as it is supposed to be responsive to all the stakeholders of the Missouri River Basin Association. It appears that the US COE is unduly influenced by some special interest groups with one motive.

Our Power Committee was formed in September, 2003, as a part of the Mo-Ark River Association, Inc. as an Advocacy Group to support the stakeholders of the Missouri River in the Greater Kansas City Region. Our committee is composed of well known, intelligent citizens with various backgrounds of history and experience but a united desire to be of some real aid by monthly meetings wherein we have enjoyed some very good presentations on the facts and problems of managing the Missouri River. This letter is not composed by our Power Committee. It is an opinion of the writer.

For several years I've been concerned with what I've read and heard about the management and operation of the Missouri River. This concern became very significant in 2003 from August 20 through September 1. Thermal electric power plant we had designed for the BPU of Kansas City, Kansas several years ago on the Missouri River faced difficulty in providing continuity of service. The river water temperature reached 87°F and the river stage was low enough to be below the required level for proper submergence for the large mixed flow pumps which provide condenser cooling from a closed river water supply. All of this has been previously discussed in writing many times by Darrell Dorsey, Manager of Electric Production for this utility. Public and private water utilities faced the risk of continuity of service because of this particular river stage.

This thermal electric power plant has a present day replacement cost of approximately \$500 million.

To prevent a possible future blackout because of a low river water stage, this particular utility has spent over \$35 million in capital expenditures, including adding a cooling tower on the plant site. This cooling tower has not only added a capital cost to the ratepayers, but it also has an added hourly operating expense plus additional risk to the continuity of service. It could be estimated that the change from a closed system using Missouri River water to a cooling tower would add some additional power plant station power use of some five (5) megawatts. Power that normally could be sold and provide revenue, which has an overall reduction in costs to the ratepayers. A cost that is eternal for as many hours as one operates the cooling tower.

**POWER COMMITTEE
of the
Missouri-Arkansas River Basins Associations**

November 2, 2006
Page Two

The cooling tower addition means more large electric motors, more large motor operated control valves, additional water treatment costs; all of which increases the risk factor to continuity of service, as well as the additional operating and maintenance costs. All resulting in higher costs to the ratepayers.

Committee:

Morris Kay
Chairman

Bob Kimball
Vice-Chairman

Jack Daily
Executive Director

Congressman
Larry Winn

Pat Cassidy

Fred Lutz

Karin Jacoby

Paul McKie

Art Stevens

Cruise Palmer

Joe Dick

Darrell Dorsey

Gerry Diddle

Tom Lutz

Tom Schrempp

Dan Fuhrman

Samuel Burr Sifers

This is but one plant on the Missouri River. Thermal-electric power plants dot the landscape from St. Louis to the Garrison Lake discharge. These power plants plus the water utility plants near the same locations provide a life giving and very necessary part of living for millions of human beings plus commercial and industry uses that furnish employment for this same group of millions of people.

All of the above discussion seems to have been completely forgotten as one reads the draft for the MRRIC Committee as proposed by the US COE.

It is suggested that the MRRIC Committee be composed of forty members. Immediately the US COE suggests eight members from the Federal government; eight members from the states' government; and one member from each of the 28 Indian tribes:

- | | | |
|----|-----------|----------------------------|
| 1. | 8 | Federal |
| 2. | 8 | State |
| 3. | <u>28</u> | <u>Tribal</u> |
| | 44 | Total (4 over 40 to start) |

It goes on to discuss a few fill-in members; none for any water utility; a couple for thermal-electric power. This representation is nothing but a joke. There are more stakeholders represented by the thermal-electric power plant customers and the water utility customers (plus the farmers along both sides of the Missouri River) than any other representative group. But these are human beings and they are not as important to US COE as the plover, tern and pallid sturgeon!

For years, the local Greater KC people have requested a degradation study of the channel of the Kansas reach of the Missouri River because its effect is disastrous. It has been estimated by others to exceed ten (10) feet.

The original design for the intake at the Nearman Power Plant for BPU placed the river bottom at the intake at elevation 720'-0" msl. As the plant personnel constructed emergency pumps, hung off the front of the intake, they recently determined that river bottom to be elevation 713'-6" msl. This is a deepening of 6'-6" and is not the deepwater part of the channel. Of course, as the degradation occurs (the channel deepens) then the same quantity of water creates a lower river stage.

POWER COMMITTEE of the Missouri-Arkansas River Basins Associations

November 2, 2006
Page Three

The Power Committee was told in an off-the-cuff remark that it would cost some \$3 million and take a couple of years to complete but there was no funding for such a study. This was two years ago.

Committee:

Morris Kay
Chairman

All at once the decision is made to construct a "chute" parallel to the Missouri River—150 feet wide and a mile long at a cost of some \$3 million. It seemed easy to find the money to pacify some special interest groups that appear to be very successful at "lobbying". Another improved "habitat" and the human beings can stand in line and await their turn.

Bob Kimball
Vice-Chairman

Jack Daily
Executive Director

At your meeting in October in Kansas City at the KCI Hilton, you presented a chart showing the piping plover and least tern census on the Missouri River. The chart shows:

Congressman
Larry Winn

	<u>Piping Plover</u>	<u>Least Tern</u>
1986	350	400
2006	794	1,279
Gain 1986 to 2006	444	879

Pat Cassidy

Fred Lutz

Karin Jacoby

Paul McKie

Different numbers have been given for the census on the pallid sturgeon, but let's assume it is 3,000 fish, and they all have been "saved" by the US COE efforts at improving the habitat.

Art Stevens

Cruise Palmer

Piping Plover gain	444
Least Tern gain	879
Pallid Sturgeon gain	3,000

Joe Dick

Darrell Dorsey

Total 4,323 (saved species)

Gerry Diddle

Tom Lutz

It is my understanding that as of the first of this year, US COE had spent \$30,000,000 on improving the habitat. I also was given to understand that it was planned to spend another \$1,000,000 in 2006. (Even though the one "chute" is estimated to cost \$3,000,000 and is now supposedly out for contract).

Tom Schrempp

Dan Fuhrman

The benefit costs $\frac{\$31,000,000}{4,323} = \$7,171$ per unit of so-called endangered species.

Samuel Burr Sifers

The study of the degradation of the Kansas City reach of the Missouri River was estimated at some \$3,000,000 and would serve all of Greater Kansas City plus surrounding areas. One could conservatively estimate 1,500,000 stakeholders who would benefit.

The benefit costs $\frac{\$3,000,000}{1,500,000} = \2 per human being.

**POWER COMMITTEE
of the
Missouri-Arkansas River Basins Associations**

November 2, 2006
Page Four

Please describe your analysis that will substantiate a benefit to cost ratio for spending \$31,000,000 on such an endeavor.

Committee:

Morris Kay
Chairman

Bob Kimball
Vice-Chairman

Jack Daily
Executive Director

Congressman
Larry Winn

Pat Cassidy

Fred Lutz

Karin Jacoby

Paul McKie

Art Stevens

Cruise Palmer

Joe Dick

Darrell Dorsey

Gerry Diddle

Tom Lutz

Tom Schrempp

Dan Fuhrman

Samuel Burr Sifers

In the many years past, the US COE has done some good things. My first association was in 1949 when we designed the Missouri City Power Plant, the Missouri City Bend of the Missouri River some 20+ miles downstream from Greater KC. The 1951 flood created some unusual problems. At this time, the Liberty Bend cutoff was planned which would straighten out the Missouri River and eliminate the Liberty Bend. The 1951 flood made the cutoff by high water and velocity. However, this created a high river crossing upstream from the Missouri City Bend and took the long established channel away from the bite of the bend and moved it about 700 feet south of our intake. The area in front of our intake was "sanding up". We designed a new dustpan dredge; built in St. Louis in two weeks; anchored in front of the intake and pumped the sand several hundred feet toward the south side of the river, where a large counterclockwise "standout" had developed in the center of the newly located channel.

We appealed to the KC District of the US COE to get the bank replacement structures restored as soon as possible. They really did a great job in placing a lot of crews on the job and the channel came back to the intake in as short a time as was possible.

Our discussions with US COE as we planned the Nearman Power Plant for BPU in the Missouri River were excellent and the final plant as constructed has been a very economical plant to operate with an excellent record of continuity of service. Our planning with the US COE established a flooded river stage that withstood the 1993 flood on the Missouri River while many, many power plants were flooded. The Nearman plant was high and dry (see photo). Previous discussions express our concern for the future.

We have always had an extremely high regard for our environment. As power plant engineers, we've had an opportunity to do things that protect our environment in a very real way. We have a plant on the south shore of Lake Superior called the Shiras Plant at Marquette, Michigan. Unit #3, a coal fired central station steam electric power plant on Marquette Bay, has the lowest total emissions of any of the over one thousand coal fired power plants in the United States, except it is tied with one other plant. (See attached EPRI chart & photo.)

The future is foretold by past action and one really doesn't know what to expect next. the flushing of the Missouri River for a spring rise (experiment) during the worst drought in recent history is not a very admirable thing to do. This spring rise is an experiment as you and others have described it. Throwing a natural resource to the winds is terrible. You state it's a ten year experiment?

**POWER COMMITTEE
of the
Missouri-Arkansas River Basins Associations**

November 2, 2006
Page Five

Committee:

Morris Kay
Chairman

Bob Kimball
Vice-Chairman

Jack Daily
Executive Director

Congressman
Larry Winn

Pat Cassidy

Fred Lutz

Karin Jacoby

Paul McKie

Art Stevens

Cruise Palmer

Joe Dick

Darrell Dorsey

Gerry Diddle

Tom Lutz

Tom Schrempp

Dan Fuhrman

Samuel Burr Sifers

Similarly, the summer low flow to expose the sand bars on the Missouri River is described as an experiment—a ten year experiment. Again, low flow—low river stages—problems for thermal-electric power plants and water utility systems that depend on the water from the Missouri River. Apparently of no concern to the US COE.

It is my opinion (shared by many others) that you have shown neglect to the human beings as you are trying to please the special interests of a particular group. The benefits that come from our Natural Resources should first be used to the benefit of human beings and not the "birds and the bees".

It is also my opinion that legislative action is probably the only way to change the direction that you have chosen. Too many people in places of concern are not aware of what is happening. My efforts will be to factually inform them on the best data available.

Very truly yours,



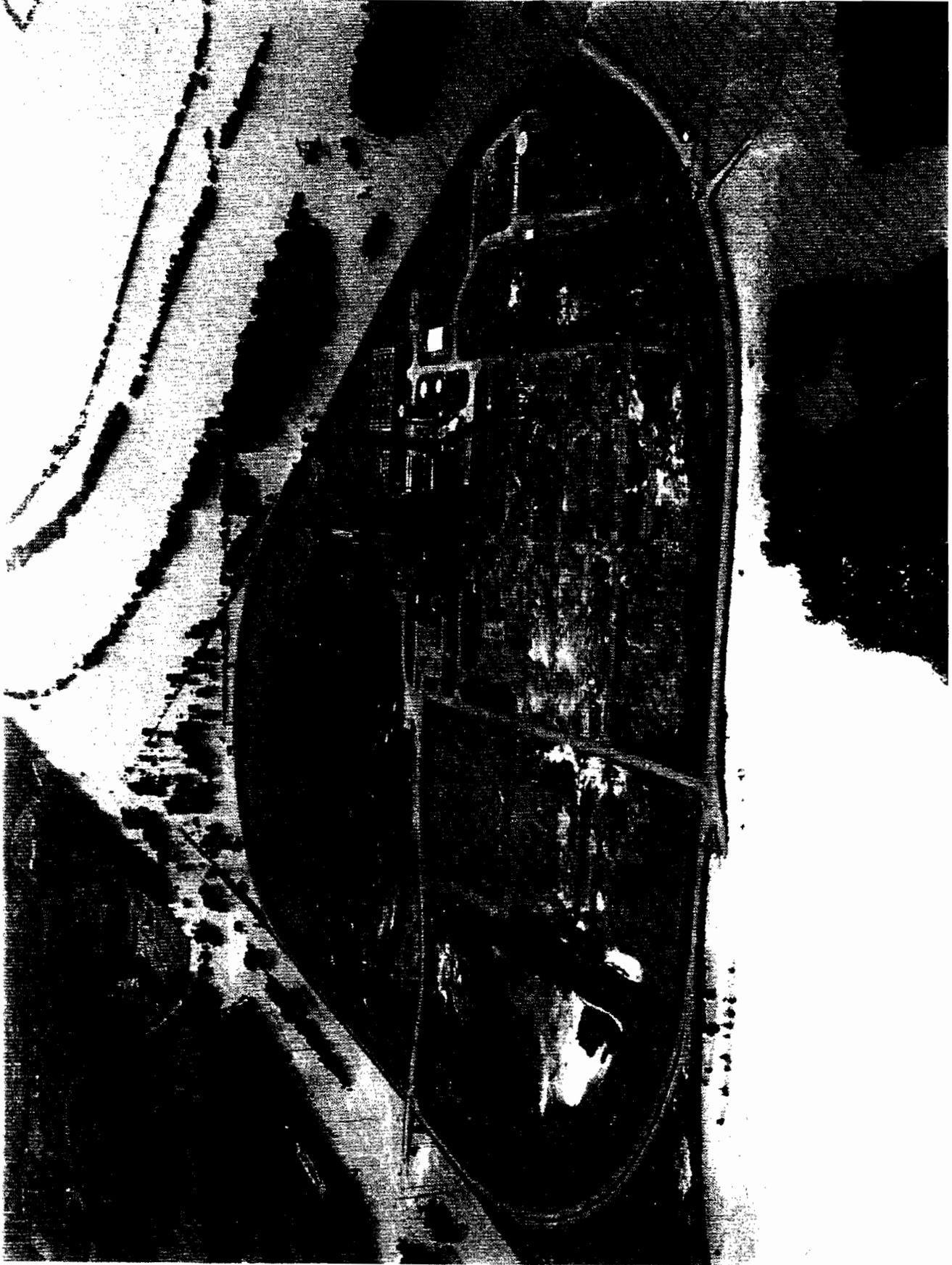
Jack F. Daily, P.E.

Ine
enclosures

Nearman Plant – 1993 Flood
Shiras Plant – Aerial Views
EPRI Emissions Chart

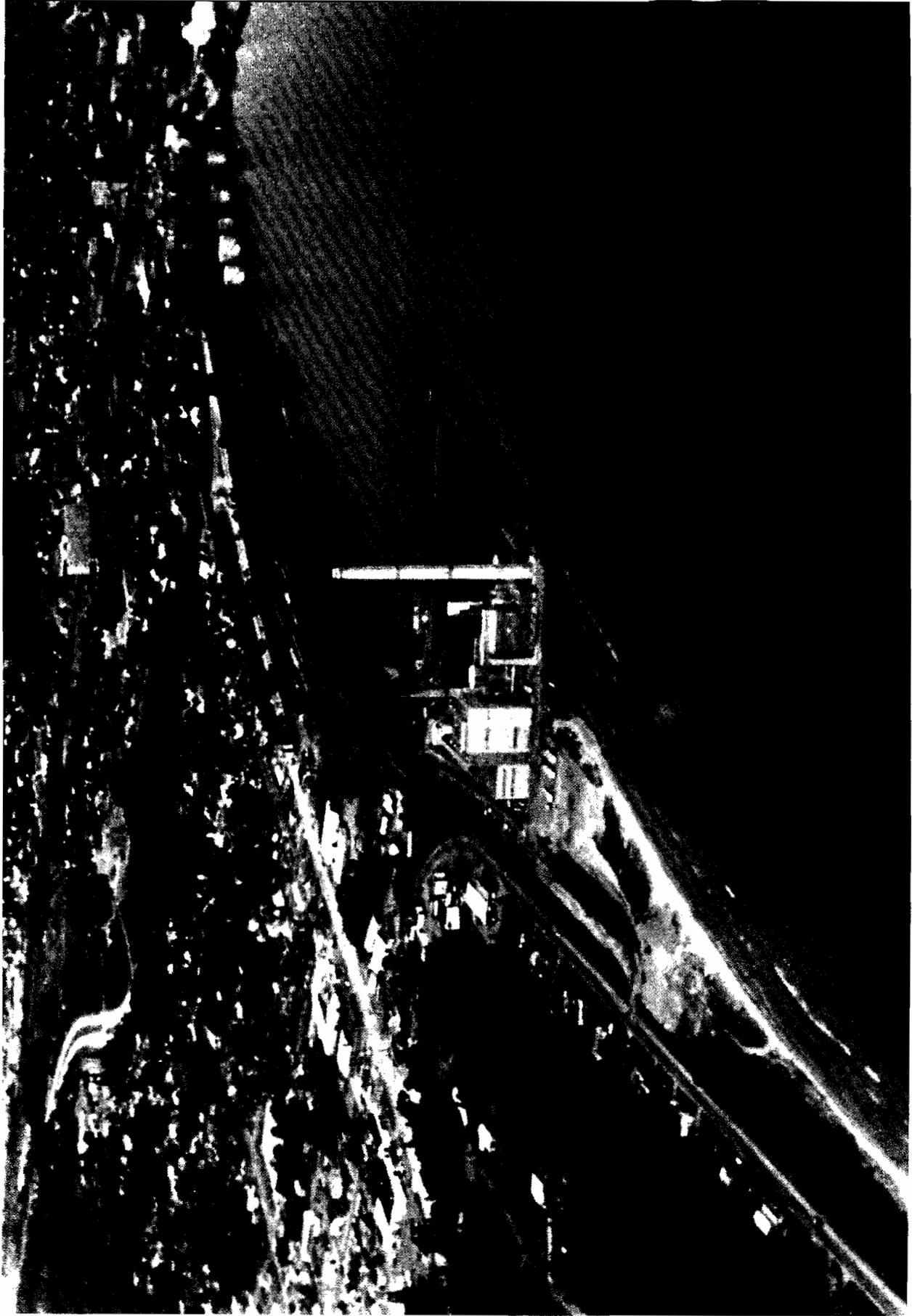
MO-ARK POWER COMMITTEE

Morris Kay, Chairman
6500 W. 95th Street
Suite 103
Overland Park, KS 66212
Tel: 913-341-8240
Fax: 913-642-1527



LUTZ, DAILY & BRAIN, LLC
Consulting Engineers

BOARD OF PUBLIC UTILITIES - KANSAS CITY, KS
Nearman Creek Power Station During 1993 Flood



LUTZ, DAILY & BRAIN, LLC
Consulting Engineers

BOARD OF LIGHT & POWER - MARQUETTE, MI
Shiras Power Plant

COAL UNITS WITH THE LOWEST EMISSIONS

Based upon Combined SO₂ + NO_x Emission Rates

Lowest Emitting 25 Units out of 1,072 Nationwide in 2002

