



# CITY OF SACRAMENTO

3

## DEPARTMENT OF PUBLIC WORKS

915 I STREET SACRAMENTO, CALIFORNIA 95814  
CITY HALL ROOM 207 TELEPHONE (916) 449-5281

M. H. JOHNSON  
Director

March 18, 1985

Transportation & Community  
Development Committee  
Sacramento, California

Honorable Members in Session:

SUBJECT: Disposal of Organic Waste by Gasification - Viking  
Gasifier - Waste-to-Energy

### SUMMARY:

Attached is a report submitted by K & K Investments concerning  
"The Solution" to the garbage and waste problems. This report  
is presented for Committee information only.

Respectfully submitted,

*Melvin H. Johnson*  
Melvin H. Johnson  
Director of Public Works

For Committee Information:

*Solon Wisham Jr.*  
Solon Wisham, Jr.  
Assistant City Manager

MHJ/hma

att.

K & K INVESTMENTS  
A CALIFORNIA PARTNERSHIP

RECEIVED

MAR 13 1985

PUBLIC WORKS  
& TRANSPORTATION

Transportation and Community Development Committee  
Sacramento, California

Honorable Members in Session:

I am pleased to submit the following information that I  
will present as an item on your committee meeting of March 27,  
1985.

Thank you for the opportunity to present our story  
as "The solution" of the garbage and waste problems.

Sincerely,

*William Kassis*

William Kassis  
K & K Investments

March 13, 1985

WK.bk

William Kassis  
K & K INVESTMENTS  
c/o The Equitable  
2646 Watt Avenue  
Sacramento, California 95821  
916-481-2222

4.2

## A. SUBJECT:

DISPOSAL OF ORGANIC WASTE BY GASIFICATION

## B. SUMMARY:

The Problem: Untreated tons of solid waste, generated by the concentration of people in areas throughout the world, is rapidly becoming a major disaster.

The decomposition of refuse in Sacramento's former dump sites are reported to be contaminating the surrounding rivers and ground water supplies. Present day dumping facilities are due to be filled in about 2 years.

Recommendations: K & K INVESTMENTS are proposing to take this solid, organic waste: pulverize it; process it in a totally enclosed, oxygen free atmosphere; produce useable, and valuable gas.

These gases can be used as fuel (i.e., burned in place of natural gas) or utilized by the petrochemical industry in their production of fertilizers, plastics, etc.

Economically, this process takes waste, transformes it into a negative cost product, produces a saleable energy. All this at no hazard to the environment.

## C. BACKGROUND:

MAN IS THE ONLY PRODUCER OF SOLID WASTES AND DISSIPATOR OF NATURAL RESOURCES.

With todays unsettled world, where a single assassination can determine a vital energy supply, utilization of every source of energy must be considered, every economically sound production method must be explored and, faced with rising fuel costs, an environmentally acceptable waste disposal and resource recovery system should be considered. The system must satisfy these needs: BE

Economically attractive

Environmentally sound

Capable of realistic resource recovery

Suitable for long term operation

The gasification system that we propose utilizes high temperatures to thermally decompose carbonaceous materials. The products of this system are a sterile, inert residue and a fuel gas, valuable as

a clean burning source of energy. The key advantage of our system over existing utilization of wastes are:

Production of a clean burning fuel gas and steril residue.

Elimination of pollutant emissions into the atmosphere.

Flexibility to handle most carbon-based materials.

Economically attractive installation and operating costs.

F. ALTERNATIVES:

Alternative #1 - would be to continue disposal practices that we are doing now, and according to archeologists, as we have been doing since the beginning of man's gathering into bands - DUMPING IN PILES.

Alternative #2 - Incinerate. This disposes of the material. However, incomplete combustion causes gaseous emissions and particles to discharge into the air and pollute the atmosphere. Scrubbers to trap these emissions have been known to cost as much as the incineration system.

Alternative #3 - Some eastern seaboard communities are loading barges and dumping at sea. However, debris is washing back on the beaches to haunt them. Is this really the way?

Would it not be wise to consider:

UTILIZING A RESOURCE - WASTE?

PRODUCING A PRODUCT - GAS?

GENERATING REVENUE - MONEY TO HELP RELIEVE A TAX BURDEN?

## 4.2d FINANCIAL INFORMATION:

Presently the city has an ever increasing financial burden. Expansion of the city landfill will extend the garbage dump's life approximately three years. Estimates are the City Council may need to impose increases in garbage rates of 5% in 1986, 7% in 1987, 8% in 1988, and 5% in 1989 .....and the financial problem gets bigger. There seems to be no end to the problem if we keep doing what we have been doing.

Source of Funding: The City of Sacramento should advance necessary funds to complete the Blue Water Gas Generator. Approximate cost \$500,000 for the first unit. This unit will consume 25 tons of waste organic material per day.

## 4.2e RECOMMENDATION:

The City of Sacramento and K & K Investments join together as a quasi government-private enterprise joint business to truly solve the garbage and waste products problem.

K & K Investments will contribute all of their research and development costs. The City of Sacramento will provide the funds to build a total waste to energy system. Approximate cost 10 million dollars. The City will sell electricity to SMUD. K & K Investments will receive no dollars until the City has recovered all of their costs; then, the City and K & K Investments will share in the profit of the sale of electricity equally.

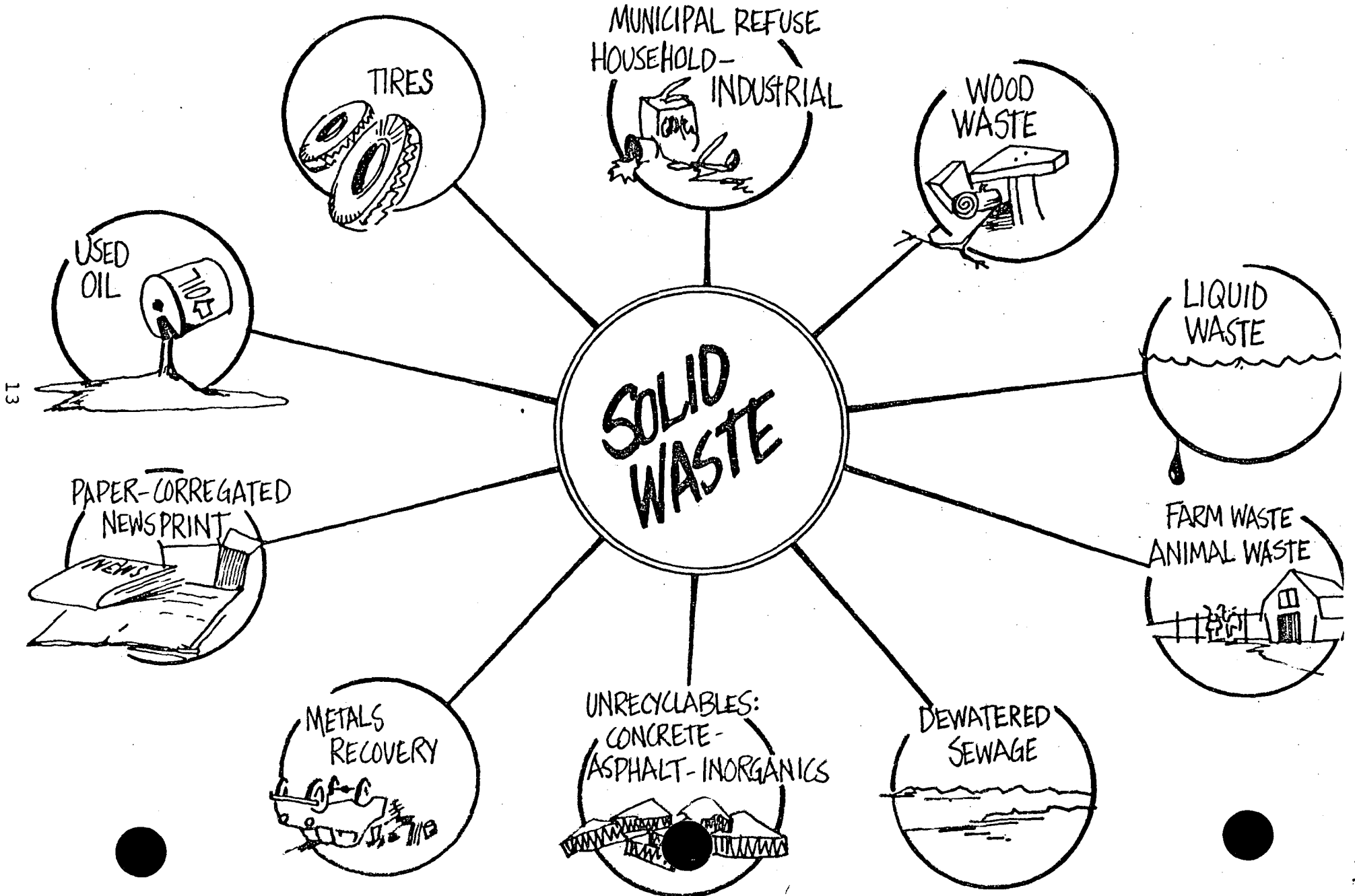
When completed, the City will turn the very negative expensive garbage problem into a process that will consume all organic waste, hazzard waste, hospital waste, etc....and produce a source of income forever.

Respectfully submitted,

*William Kassis*

William Kassis  
Chief Executive Officer  
K & K Investments

WK.bk



13