

RESOLUTION NO. CR-76-03

A RESOLUTION TO OPPOSE THE ISSUANCE OF A PERMIT TO INSTALL TO UNIVERSAL PURIFYING TECHNOLOGY COMPANY FOR A SCRAP TIRE CONVERSION FACILITY AT THE FORMER COLUMBUS WASTE-TO-ENERGY PLANT LOCATED AT 2500 JACKSON PIKE

WHEREAS, Universal Purifying Technology Company (UPT) has submitted a Permit To Install (PTI) application to the Ohio Environmental Protection Agency for a Scrap Tire Conversion Facility at the former Columbus Waste-to-Energy Plant located at 2500 Jackson Pike; and

WHEREAS, operations would include washing and drying of scrap tires, shredding of tires, conversion of tire chips by pyrolysis into synthesis gas, pyrolysis oil and solids, separation of solids into scrap steel and carbon black, storage of pyrolysis oil, burning of synthesis gas as plant fuel, palletizing of carbon black, activation of carbon, bagging of activated carbon and bagging of carbon black. Producer gas from activation would be incinerated along with excess synthesis gas. SO₂ from incinerated producer gas would be treated in a wet scrubber. Particulate emissions from carbon handling would be controlled with fabric filters; and

WHEREAS, on July 17, 2003, the Director of the Ohio EPA issued a Draft action of a Permit To Install and air contaminant source for UPT, located at 2500 Jackson Pike; and

WHEREAS, by the EPA's own documentation, as shown in Exhibit "A", the formation of emissions of dioxins from the Universal Purifying Technology emission units would be unlikely or very low; and

WHEREAS, the City of Grove City believes there are no acceptable levels of Dioxins or other probable pollutants that should be permitted ; and

WHEREAS, no other Plant exists in North America; and

WHEREAS, it is improper to place the health, safety and well being of the citizens of Grove City and the surrounding area at risk.

NOW, THEREFORE BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GROVE CITY, STATE OF OHIO, THAT:

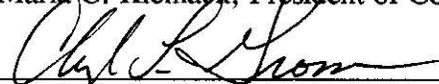
SECTION 1. This Council and Mayor do hereby oppose the issuance of such Permit To Install and the opening of any such Scrap Tire Conversion Facility in the area.

SECTION 2. The Clerk of Council is hereby directed to send a copy of this Resolution to the Ohio EPA, Division of Air Pollution Control, Attention Richard Lindstrom, the City of Columbus, and the Solid Waste Authority of Central Ohio.

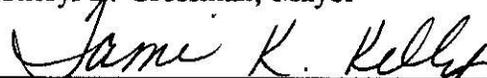
SECTION 3. This resolution shall take effect at the earliest opportunity allowed by law.



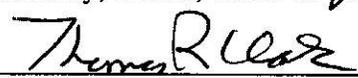
Maria C. Klemack, President of Council



Cheryl L. Grossman, Mayor



Tami K. Kelly, MMC, Clerk of Council



Thomas R. Clark, Director of Law

Passed: 11-03-03

Effective: 11-03-03

Attest:

I Certify that this resolution is correct as to form.

Introductions

Richard Lindstrom
Ohio EPA, CDO-DAPC Environmental Specialist

Mike Riggelman and Mark Hartman
Ohio EPA, CDO-DAPC Supervisors

Isaac A. Robinson, III
Ohio EPA, CDO-DAPC Manager

Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

(614) 728-3778

Permitting Process

- ▶ Company submits an application
- ▶ CDO reviews the application, requests additional information
- ▶ CDO writes a draft permit (PTI)
- ▶ Draft permit is public noticed followed by a 30 day comment period
- ▶ In this case, a public information session and a public hearing are conducted
- ▶ Comments from the public are considered and incorporated if applicable

Permit Requirements

- Cites the applicable rules
- Establishes emission limitations
- Establishes requirements for operating the control equipment
- Requires monitoring, recordkeeping and reporting
- Requires emission testing

Pyrolysis Definition

Chemical decomposition by heat, without being burned.

In UPT's process, air will not be present during pyrolysis.

The size of UPT's proposed facility is compared with other well-known facilities.

Fuel Burning Capacity, Million BTUs per Hour

Residential Space-heat Furnace or Boiler	School Space-heat Furnace or Boiler	Universal Purifying Technology	Columbus Waste-to-Energy Plant
0.05 - 0.08	2 - 10	17 - 26	1488

Total Emissions

	Particulate	Sulfur Dioxide	Nitrogen Oxides	Carbon Monoxide	Organic Compounds
Pounds per Hour	5.7	11.92	8.9	4.01	2.81

Emission Units

- P001 - Tire Shredder
 - ▶ Water Spray
 - ▶ Hooded
 - ▶ Enclosed
 - ▶ Baghouse
 - ▶ Powered by electric motor rather than by Diesel engine
- ▶ 0.6 #/hr particulate

Emission Units

- B001 - Chip Dryer
 - ▶ Gas-fired Dryer
- ▶ 0.3 #/hr particulate

Emissions Units

- B002 - Pyrolysis Unit
 - ▶ Heated without direct flame
 - ▶ Rubber melts and boils off inside the vessel
 - ▶ Vapor is condensed into oil, leaving synthetic gas
- ▶ 0.2 #/hr sulfur dioxide
- ▶ 3.9 #/hr nitrogen oxides

Emissions Units

- P002 - Material Handling
 - ▶ Includes processing and conveying
 - ▶ Main baghouse
- ▶ 1.0 #/hr particulate

Emissions Units

- P003 and P005 - Carbon packaging
 - ▶ Carbon Black
 - ▶ Activated Carbon
 - ▶ Hoods
 - ▶ Main baghouse
- ▶ 0.3 #/hr particulate each

Emissions Units

- P004 - Pelletizing Process Unit
 - ▶ Prepares carbon for activation
 - ▶ Pellets are dried
 - ▶ Enclosed
 - ▶ Main baghouse
- ▶ 1.7 #/hr particulate
- ▶ 0.5 #/hr nitrogen oxides

Emissions Units

- B003 and B004 - Carbon Activation Furnaces
 - ▶ Heated without direct flame
 - ▶ Small amount of air
 - ▶ Very high temperature
 - ▶ By-product gas is incinerated and scrubbed
- ▶ 11.7 #/hr sulfur dioxide
- ▶ 4.2 #/hr nitrogen oxides

Incinerator Requirements

- Operational limit on temperature
- Required to continuously monitor temperature & record three hour averages below limit
- Required to report deviations from limit quarterly
- Initial test required within three months of installation

Scrubber Requirements

- Operational limits on water flow rates, pressure drop, and pH
- Required to monitor & record flow rates, pressure drop, and pH - daily
- Required to report deviations from limits quarterly
- Initial test required within three months of installation for organic compounds, particulate, SO₂, CO, NO_x

Total Emissions, pounds per hour Universal Purifying Technology

Emission Unit	ID	Particulate	Sulfur Dioxide	Nitrogen Oxide	Carbon Monoxide	Organic Compounds
Shredder	P001	0.6	---	---	---	---
Chip Dryer	B001	0.1	0.02	0.3	0.01	0.01
Pyrolysis	B002	0.1	0.2	3.9	2.0	1.4
Mat/Hdg	P002	1.0	---	---	---	---
C.B. Packg	P003	0.3	---	---	---	---
Pelletizing	P004	1.7	0.3	0.5	0.2	0.2
Activ'n #1	B003	0.8	5.7	2.1	0.9	0.6
Activ'n #2	B004	0.8	5.7	2.1	0.9	0.6
A.C. Packg	P005	0.3	---	---	---	---
OEPA	Total	5.7	11.92	8.9	4.01	2.81

Dioxins

The formation and emission of dioxins from the Universal Purifying Technology emission units would be unlikely or very low.

Toxic Air Pollutants

Ohio EPA's Toxic Air Pollutant Guidelines are based on Threshold Limit Values established by ACGIH.

Ohio Air Toxics Guideline

	Benzene	Formaldehyde	Hexane	Zinc Oxide
Ambient Air Impact ug/m ³	0.26	1.05	25	4.1
Maximum Acceptable Ground Level Concentration ug/m ³	39	8.9	4,268	119
Percent of Guideline	0.7%	12%	0.6%	3%

Ambient Air Impact

	Particulate	Sulfur Dioxide	Nitrogen Oxide	Carbon Monoxide	Organic Compounds
Total, pounds per hour	5.78	13.25	7.17	3.20	2.29
Maximum Ambient Air Concentration, ug/m ³	14.4	42.4	6.4	NA	NA

These emission rates comply with the National Ambient Air Quality Standards, Prevention of Significant Deterioration, and the Ohio Acceptable Incremental Impact Policy