



Dow U.S.A.

The Dow Chemical Company
P O Box 150
Plaquemine, Louisiana 70765-0150

May 30, 1991

Dean Walters Cell Service Building 5601

On May 30, 1991, AT-500 and conveyor in the Cell Service Block, Building 5601, was checked for face velocity. The Alnor Model 8925 Thermo Anemometer was used to take the face velocity measurements. AT-500 was checked at a(n) 24 " sash opening.

The criteria for hood classification, smoke tube observation, and flow measuring devices used in rating hood ventilation performance is attached.

Also included are recommendation(s), observation(s), testing data sheet(s) and a maintenance checklist which should be followed to maintain effective hood ventilation and appropriate classification.

Please respond in writing to Industrial Hygiene within one month as to action taken or planned in regard to these recommendations.

Please feel free to contact me with any questions.

Thank you,

Darlene S. Creel
Industrial Hygiene Department
Building 3502-W
Ext. 6181

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Observations:

The laboratory hood designation, the average face velocity (FV) and minimum measurements (FVm) reported in feet per minute (FPM), and its rated classification is as follows:

Designation	Sash Hood Opening	(FPM) FV	(FPM) FVm	Classification
AT-500	24 "	163	125	

The smoke turbulence was good on AT-500.

CONVEYOR

The smoke turbulence was *GOOD*.

Recommendations:

1. AT-500 and conveyor should be put on C-9 checklist for annual check and routine maintenance done on them.
2. Practice good housekeeping inside the AT-500.

**CRITERIA FOR HOOD CLASSIFICATION, SMOKE TUBE
OBSERVATION, AND FLOW MEASURING DEVICES**

CLASSIFICATIONS:

CLASS "A" (HIGH TOXICITY USE)
CARCINOGENIC, TOXIC
HIGHLY FLAMMABLE

125-150 FT/MIN AVERAGE
FACE VELOCITY
100 FT/MIN MINIMUM READING

CLASS "B" (MODERATE TOXICITY USE)
TOXIC OR FLAMMABLE

100 FT/MIN AVERAGE FACE
VELOCITY
80 FT/MIN MINIMUM READING

INADEQUATE
DOES NOT MEET MINIMUM REQUIREMENTS

SMOKE TUBE OBSERVATIONS:

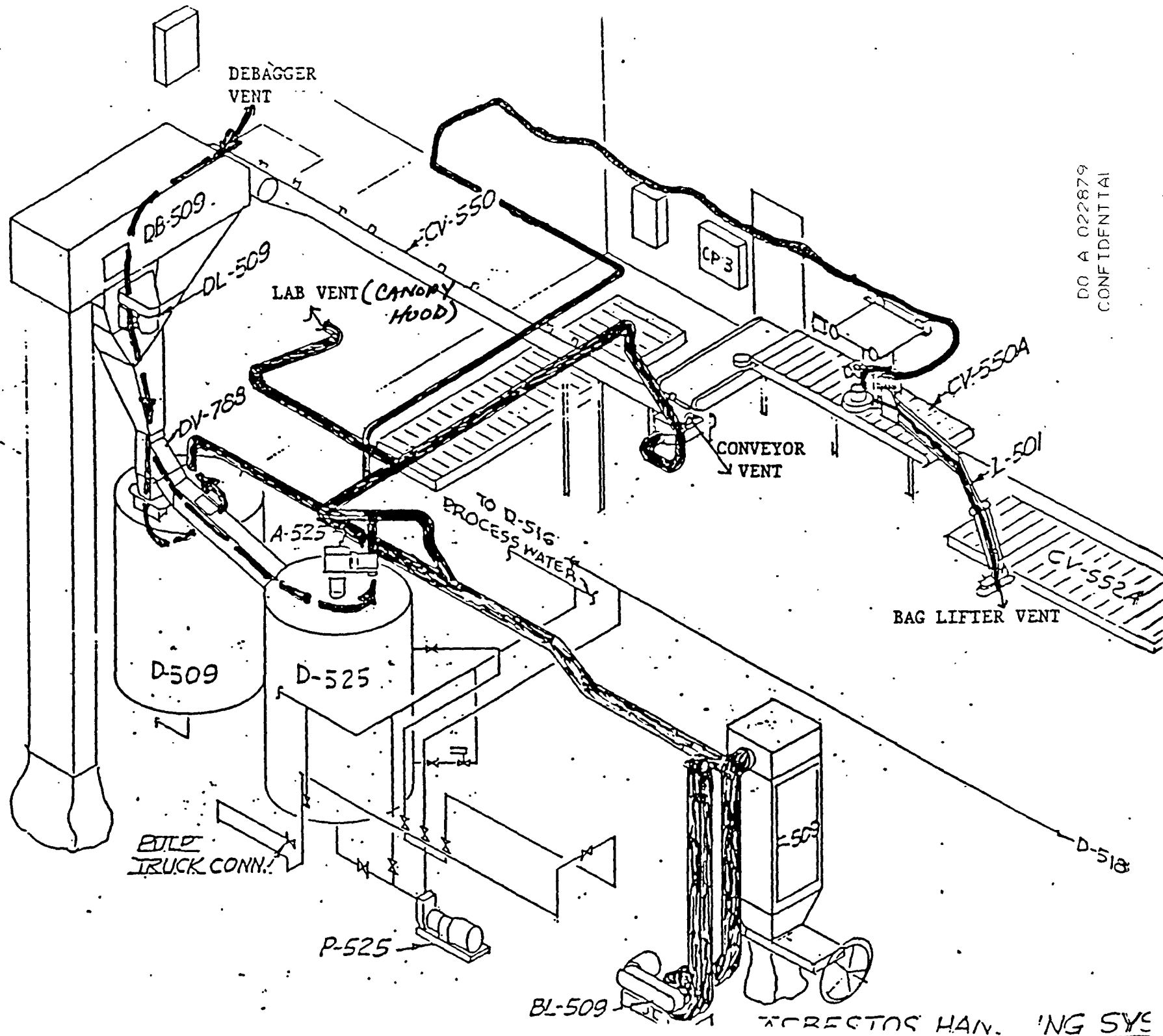
****GOOD (AIR CAPTURE BY HOOD IS STRONG AND WELL DEFINED WITH MINIMAL INTERNAL TURBULENCE, AND NO OBSERVABLE SMOKE SWIRLING BACK TO HOOD FACE WHEN PERSON STANDS AT HOOD FACE.)

****MODERATE (AIR CAPTURE BY HOOD IS POSITIVE BUT WITH SOME INTERNAL TURBULENCE OBSERVED APPROACHING THE HOOD FACE. NO SMOKE ESCAPING THE HOOD.)

****POOR (AIR CAPTURE BY HOOD IS WEAK AND/OR NOT WELL DEFINED. TURBULENCE INSIDE THE HOOD AND SMOKE OBSERVED ESCAPING HOOD FACE.)

FLOW MEASURING DEVICES:

WHEN THE STATIC PRESSURE DEVIATES (-/+) 10% FROM THE LISTED STATIC PRESSURE, ITEM #20 SHOULD BE FOLLOWED ON THE MAINTENANCE CHECKLIST ATTACHED TO THIS REPORT. THE STATIC PRESSURE READING WAS ESTABLISHED AT TIME OF PERFORMANCE CHECK AND INDICATED BY A RED LINE ON THE DEVICE. DOCUMENTATION OF AIR FLOW MONITOR DEVICE PERFORMANCE IS TO BE DONE ONCE PER WEEK. INSPECTION/ZEROING/CALIBRATION OF AIR FLOW DEVICE IS TO BE DONE ONCE PER YEAR. THIS DOCUMENTATION IS TO BE PART OF THE INDUSTRIAL HYGIENE RECORDS FOR YOUR PLANT. PLEASE FORWARD DOCUMENTATION TO THE PLANT INDUSTRIAL HYGIENE CONTACT FOR YOUR PLANT.



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