TESTIMONY OF CLAIBOURNE D. SMITH

FOR E. I. DU PONT DE NEMOURS & COMPANY

I AM CALIBOURNE D. SMITH, ENVIRONMENTAL AND TRAINING MANAGER FOR THE DU PONT COMPANY, AND OFFER THE FOLLOWING COMMENTS FOR THE RECORD OF OSHA'S RULEMAKING ON THE BENZENE STANDARD EXEMPTION LEVEL.

SAFETY PROCEDURES AND ENVIRONMENTAL CONTROLS FOR THE SAFETY AND HEALTH OF EMPLOYEES, CUSTOMERS AND THE PUBLIC, HAVE LONG BEEN A DU PONT TRADITION. PRINCIPLES OF SAFETY WERE ESTABLISHED WHEN THE COMPANY WAS FOUNDED IN 1802. SAFE PRACTICES AND SAFETY STANDARDS HAVE CONTINUOUSLY BEEN REFINED AND IMPROVED. THE RESULT HAS BEEN A SAFE WORKING PERFORMANCE BY DU PONT EMPLOYEES THAT IS UNMATCHED IN INDUSTRY.

AS PART OF OUR LONG-STANDING PRACTICE OF PROTECTING THE HEALTH AND SAFETY OF OUR EMPLOYEES, CUSTOMERS, AND THE PUBLIC, IT IS OUR POLICY TO NOT MAKE, USE, SELL, TRANSPORT, OR DISPOSE OF A PRODUCT UNLESS WE CAN DO SO SAFELY AND IN AN ENVIRONMENTALLY SOUND MANNER.

WE ARE FIRMLY COMMITTED TO SPENDING ALL THE DOLLARS THAT OUR BEST JUDGMENT TELLS US MUST BE SPENT TO ACHIEVE WORKER SAFETY, BUT WE BELIEVE THAT SPENDING DOLLARS WHICH DO NOT MATERIALLY ADVANCE THIS CAUSE IS A WASTE OF RESOURCES THAT DU PONT, THE ECONOMY, AND THE NATION CANNOT AFFORD. THE ABSENCE OF ANY MIXTURE EXEMPTION FOR BENZENE MIXTURES AS IN

THE FINAL BENZENE REGULATION IS AN EXAMPLE OF SUCH AN UNNECESSARY AND WASTEFUL REGULATION.

IT IS SIGNIFICANT TO NOTE THAT OSHA HAS ESTABLISHED A PERMISSIBLE WORKPLACE EXPOSURE LIMIT OF 1 PPM WHICH ALLEGEDLY IS PROTECTIVE OF EMPLOYEE HEALTH. IT CAN BE ARGUED THAT THE 1 PPM LEVEL REPRESENTS AN UNNECESSARILY LARGE MARGIN OF SAFETY. THE RECORD OF THE FINAL RULE SHOWS THAT HIGHER THAN EXPECTED INCIDENCES OF LEUKEMIA WERE OBTAINED AT RELATIVELY HIGH BENZENE EXPOSURE LEVELS -- APPROXIMATELY 100 PPM AND ABOVE. THERE IS NO EVIDENCE OF EXCESSIVE INCIDENCE AT LEVELS LOWER THAN 100 PPM. OSHA ITSELF STATES IN THE PREAMBLE TO THE FINAL STANDARD THAT ". . . THE QUALITY OF THE EVIDENCE AVAILABLE IN THE RECORD IS INSUFFICIENT TO PERMIT MEANINGFUL CONCLUSIONS CONCERNING EXPOSURE TO BENZENE AT LOW LEVELS AND RESULTING HEALTH EFFECTS." (43 FED. REG. 5925). WE ARE OF THE OPINION THAT 10 PPM IS AN ACCEPTABLE EXPOSURE LEVEL, HOWEVER, IT IS LOGICALLY INCONSISTENT FOR OSHA TO ESTABLISH A 1 PPM PERMISSIBLE WORKPLACE EXPOSURE LIMIT FOR BENZENE AND YET REGULATE MIXTURES CONTAINING ANY AMOUNT OF BENZENE.

DUE TO THE UBIQUITOUS NATURE OF BENZENE, IT IS PRESENT IN TRACE AMOUNTS IN A LARGE NUMBER OF PRODUCTS. REQUIRING LABELING OF THESE PRODUCTS AND MONITORING OF WORK OPERATIONS WHERE THERE IS EXPOSURE TO THESE PRODUCTS WOULD BE EXTREMELY EXPENSIVE WITHOUT RESULTING IN ANY IDENTIFIABLE BENEFIT TO HUMAN HEALTH.

Necessity of Exemption

Benzene is produced by the catalytic reforming of petroleum and is present in some quantity in all products derived from petroleum, including essentially all plastics, synthetic fibers, all petroleum-based fuels, as well as cleaning fluids, solvents, detergents, pesticides, and a vast range of other chemical products. In addition, benzene is a basic building block in organic chemical manufacture; therefore, residual trace amounts can be found in other derivative products. Benzene is also present in trace amounts in the drinking water of several American cities.

If there were no exemption for liquid mixtures, virtually every can of paint in the country would be covered by a benzene standard due to the low levels of benzene in the water and hydrocarbons used as paint solvents. Du Pont's Fabrics and Finishes Department (F&F) would have to relabel 35 million containers in plants and warehouses at an estimated cost of $6,643,000. Du Pont's customers would incur an additional $11,388,000 in costs to relabeling 60-70 million containers. Extrapolated to the approximately 1,500 paint manufacturers in the United States, the total relabeling cost to the paint industry alone would be in the hundreds of millions of dollars.

In addition, if there were no liquid mixture exemption, initial monitoring would be required at every workplace "where benzene is produced, reacted, released, packaged, repackaged,

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STORED, TRANSPORTED, HANDLED OR USED." (PARAGRAPH 1910.1028 (E)(2)). WE ESTIMATE THE MONITORING COST TO DU PONT, OUR 12,000 RESELLER CUSTOMERS AND THE 75,000 TO 85,000 BODY REPAIR SHOPS USING OUR PRODUCTS TO TOTAL APPROXIMATELY $35,000,000.

1 PERCENT IS A FEASIBLE EXEMPTION LEVEL

DU PONT SUPPORTS A 1% EXEMPTION LEVEL FOR LIQUID MIXTURES. DATA WHICH WE SUBMITTED TO THIS RECORD ON MAY 12, INDICATE THAT 1% IS A LEVEL WHICH WILL PROVIDE A FEASIBLE BENZENE STANDARD AND AT THE SAME TIME, PREVENT HARMFUL EXPOSURES TO BENZENE.

BENZENE IS NOT ADDED TO ANY OF DU PONT'S FORMULATIONS. HOWEVER, AS THERE ARE NO BENZENE-FREE SUBSTITUTES FOR SOLVENTS, IT IS IMPOSSIBLE TO EXCLUDE SMALL AMOUNTS OF BENZENE IN MANY OF OUR PRODUCTS AND REACTION STREAMS.

DU PONT "F&F" HAS ATTEMPTED TO MAINTAIN LOW LEVELS OF BENZENE IN ITS PRODUCTS BY SPECIFYING MAXIMUM ALLOWABLE LEVELS OF BENZENE IN SOLVENTS SUCH AS TOLUENE AND MINERAL SPIRITS PURCHASED FOR USE IN AUTOMOTIVE REFINISH THINNERS. MOST OF THE SOLVENTS WE NOW PURCHASE HAVE MAXIMUM SPECIFIED LEVELS OF 0.1% BENZENE, HOWEVER, FOUR SOLVENTS, HEXANE, PETROLEUM NAPTHA, LOW FLASH VM&P AND TOLUENE CHARACTERISTICALLY MAY CONTAIN LARGER AMOUNTS OF BENZENE AS IMPURITIES. SOME OF DU PONT'S SUPPLIERS OF THESE FOUR SOLVENTS HAVE BEEN ABLE TO MEET THE .1% SPECIFICATION; HOWEVER, SIX OF OUR SUPPLIERS HAVE ONLY BEEN ABLE TO ASSURE US THAT BENZENE LEVELS IN THESE SOLVENTS ARE BETWEEN .1 AND .5%.

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FOR ALL OF THESE SOLVENTS, "F&F" CAN PRESENTLY SWITCH TO SUPPLIERS WHO WILL PROVIDE US WITH SOLVENTS WITH LESS THAN .1% BENZENE. HOWEVER, IF THE MARKET FOR LOW FLASH NAPTHA BECOMES TIGHT AS CAN HAPPEN QUICKLY IF ONE MAJOR REFINERY IS FORCED TO SHUT DOWN SOLVENT PRODUCTION FOR A PERIOD OF TWO WEEKS OR MORE, WE ANTICIPATE A PROBLEM WITH OBTAINING AN ADEQUATE SUPPLY OF LOW FLASH NAPTHA WITH BENZENE LEVELS LESS THAN .1%. THIS IS DUE TO THE FACT THAT TWO OF THE LARGEST SUPPLIERS OF LOW FLASH NAPTHA HAVE BEEN UNABLE TO MEET A .1% SPECIFICATION AND ALSO, TO THE FACT THAT THE MARKET FOR LOW FLASH NAPTHA WHICH MEETS THIS SPECIFICATION WILL BECOME EVEN TIGHTER WHEN THE BENZENE REGULATION GOES INTO EFFECT.

OTHER DU PONT DEPARTMENTS ARE EXPERIENCING SIMILAR DIFFICULTIES IN PURCHASING SOLVENTS WHICH HAVE LESS THAN .1% BENZENE PRESENT AS IMPURITIES. A 1% MAXIMUM BENZENE LEVEL ON THE OTHER HAND, SEEMS TO BE ONE THAT INDUSTRY CAN PRESENTLY MEET.

A 1% EXEMPTION LEVEL WILL RESULT IN VERY LOW LEVELS OF EXPOSURES TO BENZENE RESULTING FROM USE OF DU PONT PAINTS

TESTS WERE PERFORMED WITH DU PONT TOPCOAT PAINTS SPRAYED IN A TYPICAL BODY SHOP AT VENTILATION RATES OF 110 FEET PER MINUTE TO SIMULATE GOOD PAINTING PRACTICE AND AT 40 FEET PER MINUTE TO SIMULATE MARGINAL VENTILATION. DETAILS OF THESE TESTS ARE A PART OF THE RECORD AS OUR MAY 12 COMMENTS. EVEN THIS VERY VOLATILE TYPE OF PAINT RESULTED IN PAINTER

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EXPOSURES OF 0.6 PPM OR LESS BENZENE. WHEN THE PAINTS WERE SPIKED BY ADDING 0.05% AND 0.10% PURE BENZENE, THE EXPOSURES DID NOT EXCEED 0.7 PPM. EVEN WHEN SPIKED WITH 1.0% BENZENE, THE HIGHEST BENZENE LEVEL OBTAINED WAS 4.3 PPM. OF COURSE, BENZENE IS NOT NORMALLY ADDED TO OUR PAINTS AND NORMAL WORK PRACTICE WOULD RESULT IN STILL LOWER TIME-WEIGHTED AVERAGE EXPOSURES, BUT OUR TESTS SIMULATED AN UPPER LEVEL EXPOSURE POTENTIAL FOR THESE TYPE PRODUCTS.

THE EXPERIENCE IN OUR MANUFACTURING OPERATIONS ALSO INDICATES THAT LOW EXPOSURES RESULT FROM HANDLING BENZENE MIXTURES.

IN VIEW OF THE HEALTH DATA IN THE HEARING RECORD AND THE EXPOSURE DATA OBTAINED WITH OUR PRODUCTS, LABELING PRODUCTS WITH LESS THAN 1% OF BENZENE WITH A CANCER HAZARD LABEL WOULD BE CONFUSING RATHER THAN BENEFICIAL TO THE AMERICAN WORKER AND PUBLIC. LABELING THESE PRODUCTS CONVEYS NO IDEA OF THE FACT THAT IF THERE IS ANY RISK AT ALL, IT IS EXTREMELY LOW. IN ADDITION, THE EFFECT OF LABELING CONTAINERS WHICH DO CONTAIN LARGE QUANTITIES OF BENZENE AND ARE IN FACT POTENTIALLY HAZARDOUS TO HUMAN HEALTH WITH A LABEL IDENTICAL TO THOSE CONTAINING MINIMAL AMOUNTS OF BENZENE WILL GREATLY DILUTE THE EFFECTIVENESS OF SUCH A WARNING.

Grandfather Clause

OSHA HAD PREVIOUSLY RECOGNIZED IN THE PREAMBLE TO THE PROPOSED STANDARD THE NEED TO PROVIDE INDUSTRY WITH

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ADDITIONAL TIME TO CLEAR EXISTING INVENTORIES BEFORE A LOW EXEMPTION LEVEL WENT INTO EFFECT. SUCH AN EXEMPTION IS CLEARLY NECESSARY IF THE .1% LEVEL IS CHOSEN. AS I HAVE ALREADY STATED, DUE TO IMPURITIES IN ORGANIC SOLVENTS, LEVELS OF 0.1-1.0% BENZENE ARE PRESENT IN A LARGE NUMBER OF PRODUCTS WHICH HAVE ALREADY BEEN PACKAGED. THESE PRODUCTS ARE NOW IN WAREHOUSES AND AT CUSTOMERS PLANTS. IN MANY CASES, IT WOULD BE PHYSICALLY IMPOSSIBLE TO LOCATE THEM. EVEN IF LOCATION WAS POSSIBLE, THE COSTS OF LOCATING AND RELABELING THEM AND PERFORMING INITIAL MONITORING WOULD BE EXORBITANT. WE ESTIMATE THE COST TO DU PONT AND OUR CUSTOMERS WOULD BE APPROXIMATELY $31 MILLION. AS THESE PRODUCTS CONTAIN MUCH LESS THAN 1% BENZENE AND PRESENT NO SIGNIFICANT HEALTH HAZARD, IT MAKES NO SENSE TO IMPOSE THIS COST BURDEN ON INDUSTRY AND ULTIMATELY THE PUBLIC.

IN THE PROPOSED PERMANENT STANDARD, OSHA ATTEMPTED TO LESSEN THE COST BURDEN BY PROVIDING A HIGHER EXEMPTION LEVEL FOR ONE YEAR BEFORE THE PERMANENT EXEMPTION LEVEL WOULD GO INTO EFFECT. THIS, HOWEVER, WOULD NOT SOLVE THE PROBLEM AS IT WOULD TAKE MUCH LONGER THAN ONE YEAR TO CLEAR EXISTING INVENTORIES. A GRANDFATHER CLAUSE SHOULD BE ADDED EXEMPTING LIQUID MIXTURES WHICH CONTAIN 0.1-1.0% BENZENE AND HAVE ALREADY BEEN PACKAGED AT THE TIME THE STANDARD GOES INTO EFFECT.

SUMMARY

IN SUMMARY, WE BELIEVE THAT A 1% EXEMPTION LEVEL FOR BENZENE MIXTURES IS BOTH ECONOMICALLY FEASIBLE AND DOES

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NOT PRESENT A HEALTH HAZARD. WE SUGGEST, HOWEVER, THAT IF A LOWER LIMIT IS PROVIDED THAT EXISTING STOCKS OF PRODUCTS BE EXEMPTED.

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