

ILLINOIS POLLUTION CONTROL BOARD
October 20, 1994

TRW, INC.,)	
)	
Petitioner,)	
)	
v.)	PCB 93-196
)	(Variance)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

JAMES F. MULHERN APPEARED ON BEHALF OF TRW, INC.; and

KYLE NASH DAVIS APPEARED ON BEHALF OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by J. Theodore Meyer):

This matter is before the Board on petitioner TRW, Inc.'s amended petition for variance, filed on December 21, 1993.¹ TRW seeks a variance from 35 Ill. Adm. Code 215.301 "Use of Organic Material". The Illinois Environmental Protection Agency (Agency) filed its recommendation on June 20, 1994, recommending that the requested variance be granted, subject to conditions. A public hearing was held before hearing officer Deborah L. Frank on September 7, 1994, in Marshall, Illinois. No members of the public attended the hearing.

BACKGROUND

TRW's Transportation Electronics Division manufactures automotive electronic devices at its facility in Marshall, Clark County, Illinois. Approximately 80% of the manufacturing at the Marshall facility is the production of air bag system diagnostic modules (ASDM) for Chrysler, Toyota, and Saab. The rest of the manufacturing is for customers such as Caterpillar and General Motors. The Marshall facility employs approximately 570 full time and 112 temporary employees, and has an annual payroll of \$13.3 million. (Pet. at 7.)

As part of its manufacturing process, TRW uses a conformal coating process to coat the circuit boards used in the ASDM. This coating prevents moisture and dirt from collecting on the circuit boards. (Pet. at 3; Tr. at 14.) The coating material is

¹ TRW filed its original petition for variance on October 22, 1993.

comprised of toluene, methyl ethyl ketone, and solids. The circuit boards are dipped in the coating material, and then exposed to a heating element which evaporates the solvent. (Tr. at 14.)

RELIEF REQUESTED

TRW seeks a variance from 35 Ill. Adm. Code 215.301, which establishes an emission limit of 8 lbs/hr of organic material. Under maximum production, TRW estimates that the conformal coating process emits up to 5325 pounds per week (approximately 45 pounds per hour) of volatile organic materials (VOM). According to the Agency, when TRW began this manufacturing process it was in compliance with Section 215.301 because the coating operation emitted less than 8 lbs/hr. However, the Agency states that due to the increased demand for air bags, TRW is not presently in compliance with Section 215.301. (Rec. at 4.) TRW seeks a variance from Section 215.301 to allow it an opportunity to investigate compliance options. (Pet. at 4.) In its amended petition, TRW requested a variance of up to 30 months. (Pet. at 1.) However, the Agency has recommended that the requested variance expire on September 30, 1995 (Rec. at 9), and TRW indicated at hearing that it is committed to achieving compliance by that date (Tr. at 23).

ENVIRONMENTAL IMPACT

TRW's Marshall facility is located in Clark County, which is characterized as attainment for ozone. (Pet. at 17.) TRW states that there were no recorded exceedences of the ozone air quality standard at the two nearest monitoring stations² during 1992, which registered highest readings of 78-85% of the ozone standard. Based on those results, TRW believes that emissions from its Marshall facility will not have a significant effect upon the air monitoring results. (Pet. at 11, 17.) TRW also modeled emissions from the coating operation using a USEPA-approved air dispersion model, and further notes that it has not received any odor or air quality complaints about the facility. Thus, TRW concludes that the risk of any adverse effect upon the environment or human health caused by the grant of variance will be minimal. (Pet. at 16-18.)

The Agency agrees that there were no recorded exceedences of the ozone standard during 1992; however, the Agency states that the increase in TRW's production may not have fully occurred until after that period. The Agency states that the same two

² The nearest monitoring stations are located in Champaign, 90 miles northwest of Marshall, and Effingham, 55 miles southwest of Marshall.

monitors (Champaign and Effingham) did not record an exceedence in 1993. (Rec. at 7.) Additionally, the Agency believes that the issuance of a variance to TRW may have an environmental impact in the Chicago ozone nonattainment area, since Clark County is located upwind of the Chicago area. (Rec. at 7.) The Agency notes that background emissions contribute significantly to the ozone problems in the Chicago area, and states that it is particularly concerned given the requirement that Illinois reduce emissions of VOM in the Chicago area by 15% by 1996. (Rec. at 8.)

COMPLIANCE PLAN

TRW states that, with the help of its consultants, it is evaluating various air pollution control systems to reduce emissions to the required level. TRW considered, and rejected, condensation and flaring, and is continuing to evaluate carbon adsorption, thermal oxidation, catalytic oxidation, and solvent scrubbing. (Pet. at 14.) Installed capital costs for these options range from \$200,000 to \$600,000, with annual operating costs between \$8,000 to \$200,000 per year. (Pet. at 15.) TRW is also evaluating alternative coating processes. A revised process would reduce emissions at the source, and not require the capture and treatment of emissions. (Pet. at 14; Tr. at 23.) Mark Desmarais, manager of manufacturing engineering at the Marshall facility, testified at hearing that TRW has identified an alternative coating process, and that preliminary testing indicates that the alternative process meets all specifications. (Tr. at 16.) Mr. Desmarais testified that the process is now being tested to qualify the results with all of TRW's customers, which can only be done by running the customer's product in the plant. (Tr. at 16-17.) TRW has indicated that it will continue to explore alternative control equipment, so that it can comply with the emission limits if the alternative coating process is ultimately unsuccessful. (Tr. at 25-26.)

HARDSHIP

TRW states that the conformal coating process is a critical step in its production processes, and that restricting or temporarily suspending the coating process would, in effect, completely shut down the Marshall facility. In addition to the 700 employees who would be out of work, TRW maintains that its inability to produce electronic devices for companies such as Chrysler, Toyota, Saab, General Motors, and Caterpillar would have a significant effect on automobile and hearing equipment manufacturing operations. TRW notes that it is the sole supplier of air bag system diagnostic modules for Chrysler. (Pet. at 24.) TRW concludes that compliance with Section 215.301 would impose an arbitrary and unreasonable hardship upon TRW. (Pet. at 1.)

The Agency states that "[n]otwithstanding the environmental

impact, in deference to the facility's concerns with achieving the limits set forth in the Act [sic] and maintaining customer satisfaction, the Agency agrees that requiring TRW to comply before it has had an opportunity to evaluate the situation fully would cause an unreasonable hardship." (Rec. at 8.)

CONSISTENCY WITH FEDERAL LAW

TRW states that emissions from its Marshall facility are not expected to violate air quality standards, and that prevention of significant deterioration (PSD) regulations do not apply. TRW further states that there are no applicable new source performance standards (NSPS) or national emissions standards for hazardous air pollutants (NESHAPs). Thus, TRW concludes that the requested variance is consistent with those federal requirements. (Pet. at 26.)

The Agency states only that because Part 215 has been approved by USEPA as part of the Illinois state implementation plan (SIP), the variance, if granted, will need to be submitted to USEPA as a SIP revision. (Rec. at 8-9.)

CONCLUSIONS

After reviewing the record and the parties' arguments, the Board finds that immediate compliance with 35 Ill. Adm. Code 215.301 would impose an arbitrary or unreasonable hardship on TRW. The record demonstrates that TRW's emissions have a minimal impact in the immediate area, and that immediate compliance with the emission limitation would require a shut-down of the Marshall facility. Therefore, the Board will grant a variance until September 30, 1995 from Section 215.301 for TRW's Marshall facility, subject to conditions.

We are concerned with the possibility that TRW's emissions might adversely impact on the Chicago ozone nonattainment area. However, the variance is for a relatively short time period, and will cover one ozone "season" (i.e. April to October 1995). We expect that TRW will strictly comply with all timeframes in the variance, and attain compliance by the September 30, 1995 expiration of this variance.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

TRW, Inc. is hereby granted a variance for its Marshall, Illinois facility from 35 Ill. Adm. Code 215.301, subject to the following conditions:

1. This variance begins on the date of this order, and

expires on September 30, 1995.

2. TRW shall not exceed emissions of 45 lbs/hr of organic material from its conformal coating operation, with weekly emissions not to exceed 5325 pounds of organic material.
3. If TRW chooses to attain compliance by the use of control equipment, TRW shall submit an application for construction permit to the Illinois Environmental Protection Agency (Agency) by November 1, 1994.
4. If compliance is to be achieved by the use of a compliant coating, TRW shall begin using that coating by September 30, 1995.
5. If compliance is to be achieved by the use of control equipment, that equipment shall be installed and operating by September 30, 1995. The equipment shall be stack-tested within 90 days of start-up of the equipment, and the results of that test shall be submitted to the Agency. TRW shall also notify the Agency 30 days prior to the date of testing so that a field inspector may be present for the test.
6. TRW shall submit quarterly compliance progress reports on the development of an alternative coating process or selection and installation of control equipment, including order dates, delivery dates, and anticipated start of construction. Each report shall be submitted within 10 days of the end of each quarter, and shall continue to be submitted until compliance is achieved. Each report shall be submitted to:

Kyle Davis
Assistant Counsel
Division of Legal Counsel
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794-9276

Dan Punzak
Environmental Engineer
Air Pollution Control
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794

John Justice
FOS Region III
Bureau of Air
20009 Mall Street
Collinsville, IL 62234

7. TRW shall keep records of the amount of coating material and dilution solvent used on a daily basis. These records shall be made available to Agency personnel upon request.

- 8. TRW shall reduce volatile organic material emissions to the greatest extent possible, including, but not limited to, implementing process modifications. During the time that the coating operation is down, TRW shall cover the dip tank.

Within 45 days of the date of the final Board order in this case, TRW shall execute and forward to Kyle Nash Davis, Division of Legal Counsel, Illinois Environmental Protection Agency, 2200 Churchill Road, P.O. Box 19276, Springfield, IL 62794-9276, a certificate of acceptance and agreement to be bound to all terms and conditions of this variance. The 45-day period will be held in abeyance during any period that this matter is appealed. Failure to execute and forward this certificate within 45 days shall render this variance null and void. The form of the certificate shall be as follows:

CERTIFICATION

I (We), _____, hereby accept and agree to be bound by all terms and conditions of the Pollution Control Board's October 20, 1994 order in PCB 93-196.

Petitioner

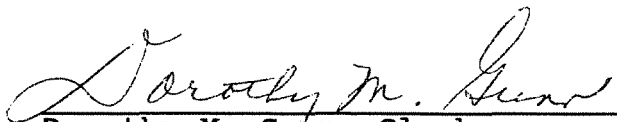
Authorized Agent

Title

Date

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 20th day of October, 1994, by a vote of 5-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board