

ILLINOIS POLLUTION CONTROL BOARD

January 8, 1987

CITIZENS OF BURBANK, )  
 )  
 Complainants, )  
 )  
 v. ) PCB 84-124  
 )  
 OVERNITE TRUCKING, )  
 )  
 Respondents. )

INTERIM ORDER OF THE BOARD (by B. Forcade):

On August 1, 1985, the Board entered an Interim Opinion and Order in this matter which found that Overnite Transportation Company ("Overnite") had violated 35 Ill. Adm. Code 900.102 and 201.141, as well as Section 24 and 9 of the Illinois Environmental Protection Act ("Act"). That Opinion and Order found unreasonable noise emissions and unreasonable odor emissions from Overnite's facility and found that those emissions constituted a substantial interference with enjoyment of life for complainants. After making this finding of a noise and odor public nuisance violation, the Board retained jurisdiction and ordered Overnite to prepare and submit a report on the methods, cost and timing of pollution reduction options. Overnite filed reports on June 16, 1986, and July 3, 1986. Citizens of Burbank ("Citizens") filed collective comments regarding the report on July 28, 1986. On January 7, 1987, Overnite filed a response to the complainant's comments. By today's Interim Order, the Board will command implementation of several pollution reduction concepts identified in the report. The Board will also require monitoring after those improvements are made and will retain jurisdiction pending receipt of a final report demonstrating completion of the required activities.

NOISE

The Board's August 1, 1985, findings of noise emission violations were based on a public nuisance legal theory applied to the citizen testimony in this proceeding. Subsequent to that finding, Overnite retained ETA, Incorporated to evaluate the noise and odor problem ("Noise and Odor Analysis for Overnite Transportation Company, filed June 16, 1986, hereinafter Report No. 1) and to investigate mitigation measures ("Addendum Number 1 to Noise Level and Odor Analysis for Overnite Transportation Company, filed July 3, 1986, hereinafter Report No. 2). Report No. 1 included results of a survey of area residents and included results of noise monitoring in the affected area. The residential survey identified the yard horses, trucks at the pump area,

truck repairs and noise by workers as the predominant sources. The primary time for noise complaints was from 10:00 p.m. until early morning. The noise monitoring portions of Report No. 1 evaluated noise impacts at four locations along the southern perimeter of Overnite, at various times. In evaluating the monitoring results, ETA concluded (Report No. 1, p. 10):

"Examination of these figures shows that the allowable night noise levels are exceeded at most frequencies. The majority of the daytime events only exceed the allowable levels for certain frequencies. The degree of exceedance is considerably less than for the night condition. Events recorded during north winds showed slightly higher noise levels than those recorded with south winds. Monitoring locations at a further distance from Overnite produced lower sound levels; although peak values in excess of the allowable levels were recorded at all locations."

Report No. 2 described two technologically feasible and effective methods for reducing noise levels. The first is to permanently reduce the maximum RPM of the yard tractor, presumably by some form of mechanical alteration to the engine. The second method is to construct a twelve foot tall solid wall across the southern perimeter of the property and the southern 400 feet of the east property line. ETA estimated that implementation of these measures could result in a 10 dB(A) reduction in noise (which represents a 90% reduction in energy and approximately a 50% reduction in perceived noise). The Board believes that the approach outlined represents a viable approach to minimize noise impacts in the affected area. The Board cannot determine, on the record presented by ETA, that these measures will be sufficient to reduce noise impacts to levels below "unreasonable interference."

The Board will order that the RPM reduction and the twelve foot tall noise barrier options be implemented. Because the ETA reports do not specify the amount of RPM reduction or the design materials for the noise barriers, these matters will be left to Overnite's discretion. Instead of specifying the noise reduction modifications in detail, the Board will require Overnite to conduct post-modification noise monitoring. This monitoring should be conducted in a manner that will allow comparison with the pre-modification testing done by ETA and allow estimates of the noise reduction achieved by the modifications. The Board will also set a June 1, 1987, deadline for completion of the modifications.

The Board notes some discrepancy between Overnite's January 7, 1987, comments and the ETA reports concerning site geography. The ETA reports urge a 400-foot wall along the east property line and describe that property line as adjoining a flood basin used for storm water retention. The Overnite comments of January 7, 1987, urge the Board to allow engineering discretion in determining the length of the wall along the west fenceline which abuts the vacant land used for stormwater retention. The Board is unable to determine whether the perimeter subject to fencing is east or west of the facility.

#### ODORS

The Board's August 1, 1985, findings of odor emission violations were based on a public nuisance legal theory that was supported by the citizen testimony in this proceeding. In ETA's Report No. 1, the residents survey identified the odor as "oily and smokey" and "a heavy diesel smell." ETA personnel detected noticeable diesel odors on one occasion during on-site monitoring. Because of the difficulties in ascribing numerical values or analytical testing to odors, ETA chose to evaluate a surrogate, hydrocarbons.

ETA modelled hydrocarbon levels at several receptors sited to represent the residential area directly south of the facility under worst case meteorology. This effort utilized the USEPA Intergrated Puff dispersion model with assumptions about Overnite's operations and emissions data from the standard 13-mode federal diesel emission cycle testing conducted in 1979. Using this approach, ETA was able to estimate the reduction in ambient hydrocarbon concentrations that could be achieved by changes in Overnite's operational procedures. Under current operating practices, idling trucks awaiting fuel line-up at the fuel bay (the lines may be 100 to 200 feet long). Also, drivers will start their trucks and then return to the office to secure paperwork and delivery instructions (this may result in 12 to 24 trucks idling at one time). When the maximum ambient concentrations calculated with these operational practices were compared with maximum calculated concentrations using different operational practices, the reductions were significant (Report No. 1, pp. 19, 21):

Maximum Concentrations Calculated from  
Operations at Overnite Trucking  
( g/m<sup>3</sup> )

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	<u>100' refueling*</u> <u>queue</u>	<u>200' refueling*</u> <u>queue</u>	<u>6 trucks</u> <u>at idle</u>	<u>12 trucks</u> <u>at idle</u>	<u>24 trucks</u> <u>at idle</u>
Current	45	77		45	74
After Operational Changes	11	22	23		

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\*Note: All refueling queues include emissions from trucks idling in refueling bays.

The operational changes involve reducing or eliminating the current practice of having trucks await refueling immediately adjacent to the fuel bay on the south end of the property. Instead, trucks would line up for fueling north of the main terminal and only move south to the fuel bay when it was free. The second operational change would be to provide drivers all relevant paperwork and instructions for daily activities prior to allowing access to the trucks for start-up. This would, in theory, reduce the start-up time and reduce the number of trucks at idle to no more than six at one time.

The Board believes the operational changes described have the potential to reduce odor emissions below the level of "unreasonable interference" and will order their implementation. Because the operational changes appear capable of rapid implementation, the Board will set a deadline of 30 days from the date of this Order.

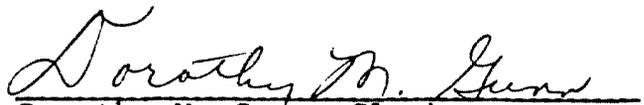
Today's Order will also require that Overnight prepare a final report after completion of the modifications to minimize noise and operational changes to minimize odor. This report must list the actual modifications made, type of material employed, and date of completion. After modifications are completed, Overnight must monitor noise levels in the area in a manner that will allow the final report to compare post-modification noise levels with the results obtained in Report No. 1. This report must be served on the parties and filed with the Board within 90 days of completion of the modifications. Unless the Complainants request a hearing to present evidence that the modifications and changes did not reduce noise and odor to reasonable levels, the Board will proceed to close this docket. Any such request must be made within 30 days after the final report is served on Complainants.

To summarize today's Order, Overnight is required:

1. To adopt operational changes, not later than February 8, 1987, that prohibit more than one truck awaiting fuel south of the north edge of the terminal building and that prohibit drivers from starting trucks in the morning prior to receiving all schedules and paperwork.
2. To implement modifications, not later than June 1, 1987, which:
  - a) permanently reduce maximum yard tractor RPM; and
  - b) construct a twelve foot tall solid noise barrier along the southern perimeter of the facility and so much of the eastern or western perimeter as is necessary to reduce noise emissions to compliant levels.
3. Prepare a final report within 90 days of the completion of items No. 1 and No. 2, but in no event later than September 1, 1987, which explains the changes made and attempts to quantify the noise reductions achieved. This report shall be served on complainants and filed with the Board.
4. The Board retains jurisdiction in this matter pending final disposition.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Interim Order was adopted on the 8<sup>th</sup> day of January, 1987, by a vote of 6-0.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board