

BEFORE THE

STATE OF OHIO

HAZARDOUS WASTE FACILITY BOARD

In the Matter of: :

SOUTHDOWN INC., SUCCESSOR BY :
 MERGER OF SOUTHWESTERN PORTLAND :
 CEMENT CO., : Case No. 91-NF-0700

FAIRBORN, OHIO :

Applicant :

*EXTENSION OF TIME
 PROPOSED PROCEDURE FOR **BOARD** MEETING
 OPPORTUNITY TO MEET **WITH STAFF***

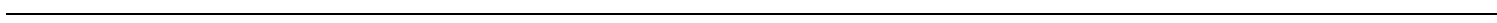
EXTENSION OF TIME: On March 9, 1994, the Board received a filing from Applicant requesting “an extension of time to respond to the Board’s Request for Clarifications and Comments from March 10, 1994, to on or before noon March 16, 1994.” CD 2.21. Cause stated by Applicant was the lengthy amount of clarifications posed to Applicant. *Id.*

Under the authority provide the Executive Director in O.A.C. 3734-1-47, Applicant’s motion is GRANTED.

PROPOSED PROCEDURE FOR BOARD MEETING: Staff will suggest that the Board adopt the following procedure for their deliberation on the Southdown application:

- Staff synopsis of the Report and Recommendation and Objections and Motions of the Parties;
- Staff synopsis of the Request for Clarifications and Comments and the responses thereto;
- Opportunity for the parties to address the Board and for the Board Members to ask questions of the parties. Time available per party, approximately ten to fifteen minutes.
- Board action anticipated on the application.

OPPORTUNITY TO MEET WITH STAFF: Staff has reviewed the documents in the record. In particular, our review of the Siting Criteria Document (CD .97) indicated several calculations and/or assumptions that are unclear. Staff is of the opinion that there is a duty upon the State,



as a permit decision making authority, to take a rigorous examination, including verification, of submitted information. As the Ohio EPA has declined to respond to our request for information regarding this issue, it is incumbent upon the Board to perform that function.

Staff will be available on Saturday, March 19th, at 10:00 a.m., at our offices to discuss the following with Applicant and the other parties to the proceeding. Applicant is requested to notify Staff if it wishes to avail itself of this opportunity or to meet at some other date before the Board meeting. Any such meeting will be open to all parties to this proceeding who may wish to attend.

1. Regarding the fire accident scenario of appendix I of CD .97:

- A.** In the flame temperature calculation of pages I-4 thru I-8, the total mass of gasses flowing with the plume of the fire were about $1/3$ of the total mass of gases flowing in the flame residence time of pages I-8 thru I-9. Should not these flows be equal?
- B.** Justification was not provided regarding the flame residence time calculation nor in the cited reference (Peters, M. S. 1984) for equating the heat transfer coefficient of equation 10 with the heat transfer coefficient of equation 11. Please explain.
- C.** The flame temperature was estimated to be uniformly 2108 K, where as in the reference cited (Ndubizu et. al. 1983) the flame temperature in the combustion zone of the flame of a burning pool is predicted to be about 1150 K and the flame temperature at the top of the visible flame may be as low as 700 K. Please explain.
- D.** Staff have observed that if the total mass flow, including entrained air, is used in the mass and heat balance of pages I-8 thru I-9, the flame temperature estimate becomes about 1150 K. Why did Applicant not include the entrainment of air in its calculations?
- E.** **The flame** height was estimated to be about 64 meters by Applicant; however, in the cited reference (Ndubizu et. al. 1983) flame heights are estimated at about 3.8 meters. Using the "ARCHIE" program of the **USEPA**, Staff estimated a flame height of about 18 meters. Please explain.

- F. Using the Arrhenius equation # 17, the flame temperature, and the constants A and Ea of Table I. 1-1, Staff were unable to obtain the values of k reported in Table I. 1-1. Please comment.
- G. The emissions from the waste fuel fire scenario were calculated using the same equations employed in the waste fuel spill scenario CD .97 page I-1 1 and presented in Table I. 1-3. Staff corrected the emission rate after the DRE adjustment back to the emission rate prior to the DRE adjustment and noted that the total evaporation rate during the fire was about 1/40th the bum rate. Should not the evaporation rate be greater than the bum rate? Is it correct to use a method for calculation of emissions from the burning pool which does not consider the impact of radiant heat on the rate of evaporation?


2. **Regarding the spill into Beaver creek scenario of section 5 of CD .97:**

- A. In Tables 5.4-3 and 5.4-4 of CD .97, should not the correct units for the maximum 1 hour average concentration at spill location and maximum 24 hour average concentration at spill location be computed in g/L instead of mg/L?

Please be reminded that Hazardous Waste Facility Board will meet on Wednesday, March 23, 1994, at 10:00 a.m., at its offices, to consider the Southdown application.

FOR THE HAZARDOUS WASTE FACILITY BOARD
BY:


MICHAEL A. SHAPIRO
Acting Executive Director


ROBERT E. BROWN
Chief Technical Advisor

