From: "Sowdon, Thomas" <tsowdon@entergy.com>
To: <RLE@NRC.GOV>
Date: 01/26/2007 12:52:28 PM
Subject: Scan001 (30).pdf

Mail Envelope Properties   (45BA3FD6.ADC : 12 : 56028)

Subject: Scan001 (30).pdf
Creation Date   01/26/2007 12:51:54 PM
From: "Sowdon, Thomas" <tsowdon@entergy.com>

Created By: tsowdon@entergy.com

Recipients
nrc.gov
  OWGWPO02.HQGWDO01
    RLE (Richard Emch)

Post Office   **Route**
  OWGWPO02.HQGWDO01   nrc.gov

Files	Size	Date & Time
Scan001 (30).pdf	144502	
Mime.822	199786	

Options
Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification: None

Concealed Subject: No
Security: Standard

Junk Mail Handling Evaluation Results
Message is eligible for Junk Mail handling
This message was not classified as Junk Mail

Junk Mail settings when this message was delivered
Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
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Block List is not enabled

1975 were estimated by averaging the two appropriate values from the preceding and succeeding years. Estimates for the missing eight months of 1972 were averages from the appropriate months of 1973, 1974, and 1975.

The wind-frequency data were related to the compass directions (relative to the plant) associated with each relevant address and the years of residence (or employment), such that the percentage of time during each year of residence or occupation the address was downwind of the plant could be determined. Because wind from different directions would be expected to affect a given site, each compass point was expanded by 45 degrees to determine the area of impact (e.g., the frequency with which winds blew from the North would be applied not only to residences and worksites situated due South but also to sites located within 45 degrees of the South compass point). The practical effect of the use of this method was that the frequency with which a particular site was estimated to have been downwind of the plant was determined via the summation of the frequencies associated with two of the sixteen compass points. The contaminant-diluting effects of wind speed and turbulence were accounted for by including in the exposure assessment formula a factor for the distance of each relevant address from the plant and by applying the inverse square law. The formula used can be found in Appendix X.
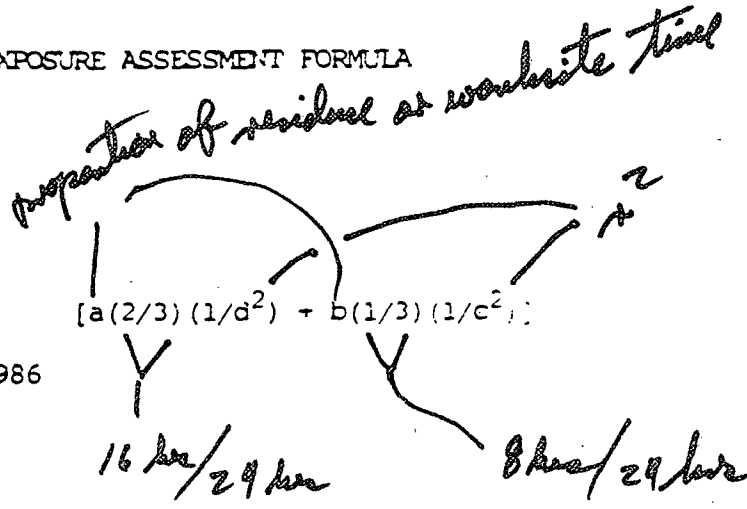
It should be noted that the fractions associated with the residence and worksite contributions to exposure relate to the typical distribution of time between work and home. Most individuals will have occupied

A P P E N D I X X

EXPOSURE ASSESSMENT FORMULA

proportion of residence at worksite time

$$\text{Exposure} = \sum_{i = 1972 - 1986} [a(2/3)(1/d^2) + b(1/3)(1/c^2)]$$

16 hrs/24 hrs   8 hrs/24 hrs

where   i = the years between 1972 and the diagnosis year

excluding those assumed for latency

a = the percentage of the time during year$_i$ that the

residence was downwind of the plant

d = the distance between the residence and the plant to

the nearest quarter mile

b = the percentage of the time during year$_i$ that the

worksite was downwind of the plant

c = the distance between the worksite and the plant to the

nearest quarter mile

Please refer to the "BACKGROUNDER.PDF" I sent separately.