

CALCULATION TITLE PAGE

CLIENT & PROJECT PFSLLC/Private Fuel Storage Facility				Total Pages = 5 PAGE 1 OF 5	
CALCULATION TITLE (Indicative of Objective): Summary of On-Site Meteorological Data				QA CATEGORY (✓) <input type="checkbox"/> - Safety Related <input checked="" type="checkbox"/> - Non Safety Related <input type="checkbox"/> - Non Safety Related with special regulatory significance (NSQ) <input type="checkbox"/> - Non Nuclear Plant	
CALCULATION IDENTIFICATION NUMBER					
J.O. NO.	GROUP DESIGNATION	CURRENT CALC. NO.	SUBCALCULATION NUMBER	OPTIONAL WORK PACKAGE NO.	
05996.01	E(B)	002	N/A	--	
APPROVALS - SIGNATURE & DATE			REV. NO. OR NEW CALC. NO.	SUPERSEDES CALC. NO. OR REV. NO.	CONFIRMATION REQUIRED (✓)
PREPARER(S)/DATE(S)	REVIEWER(S)/DATE(S)	INDEPENDENT REVIEWER(S)/DATE(S)			YES NO
<i>S. A. Vigeant</i> 6-18-97 S. A. Vigeant	<i>C. Mazzola</i> 6/20/97 C. Mazzola		0	N/A	✓
DISTRIBUTION					
GROUP	NAME & LOCATION	COPY SENT ✓	GROUP	NAME & LOCATION	COPY SENT ✓
RECORD MGT. FILE	RECORDS (old) R4.2 MANAGEMENT	✓			
PROJECT FILE	S. MACIE, DEN	✓			
ENV SCIENTIST	S. A. VIGEANT 245/03	✓			
	<i>FIRE FILE</i>	✓			

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CALCULATION IDENTIFICATION NUMBER			
J.O. OR W.O. NUMBER PAGE NO. 85996.01	DIVISION AND GROUP E(B)	CALCULATION NUMBER 002	OPTIONAL TASK CODE N/A

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REVISION STATUS

REV. No.	DATE	DESCRIPTION/REASON FOR REVISION	AFFECTED PAGES
0	See Pg 1	ORIGINAL ISSUE	ALL

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CALCULATION IDENTIFICATION NUMBER			
J.O. OR W.O. NUMBER PAGE NO. 05996.01	DIVISION AND GROUP E(B)	CALCULATION NUMBER 002	OPTIONAL TASK CODE N/A

OBJECTIVE

The purpose of this calculation is to summarize the hourly on-site meteorological data collected at the PFSF facility in Skull Valley, Utah during the period from December 19, 1996 to May 29, 1997.

ASSUMPTIONS

1. The prevailing wind directions are based on an arithmetic average of the wind directions in degrees azimuth as an approximation given the predominance of winds from SE to SW.
2. The statistics for the parameters monitored during December are for the period December 19 through December 31, 1996 and those for May are for the period May 1 through May 29, 1997.

METHOD

The hourly on-site meteorological collected in accordance with Ref. 1 are summarized using the statistical functions available in an Excel spreadsheet in which the data are stored (Ref. 2). The statistics computed include the average, maximum, and minimum values of each parameter using the Excel functions "AVERAGE", "MAX", and "MIN". The parameters monitored include: wind speed, wind direction, sigma theta, dry bulb temperature, relative humidity, barometric pressure, solar radiation, soil temperature, and precipitation.

The meteorological database was created in accordance with Ref. 3 and validated in accordance with Ref. 4. The validation process did not identified any parameter values that were unreasonable or did not meet the validation criteria of Ref. 4.

REFERENCES

1. Specification for Meteorological Monitoring System, Purchase Specification No. 05996.01-W012G-Rev. 0, October 17, 1996.
2. Hourly On-Site Meteorological Data Collected at the Skull Valley Goshute Indian Reservation in Skull Valley, Utah from December 19, 1997 to May 29, 1997. Data are stored in Excel spreadsheet named "PFSFMET.XLS" dated June 17, 1997, 2:29 p.m.
3. Procedure for Meteorological Data-Base Management, Procedure Number 05996.01-MET-003, 12/13/96.
4. Procedure for Routine Meteorological Data-Base Validation, Procedure Number 05996.01-MET-001, 12/13/96.

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RESULTS/CONCLUSIONS

The summarized on-site meteorological data are provided on p. 5.

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Summary of Hourly Average On-Site Meteorological Data¹

Parameter	Month					
	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>
Wind Speed (mph)						
- avg	12.1	8.9	8.4	9.4	9.7	7.9
- max	26.9	32.8	28.9	32.0	32.9	23.5
Prevailing Wind Direction						
	SE	S	SW	SSW	SW	SSW
Temperature (°F)						
- avg	36.7	27.6	29.8	40.1	42.9	57.3
- max	59.4	57.1	55.8	74.9	76.2	86.9
- min	10.9	-7.0	6.7	6.4	10.6	21.2
Relative Humidity (%)						
- avg	62.3	77.4	72.7	55.7	59.3	50.2
- max	95.5	98.4	97.5	96.9	96.8	94.0
- min	25.8	38.4	25.0	8.3	12.4	6.9
Solar Radiation (W/m²)						
- avg	55.5	78.3	134.8	196.6	228.6	274.9
- max	533.2	536.1	717.0	823.0	897.0	977.0
Barometric Pressure (mb)						
- avg	857.1	861.5	862.2	861.9	858.0	860.0
- max	870.5	875.6	872.5	874.9	866.3	866.2
- min	844.9	846.4	839.7	849.7	845.1	851.9
Precipitation (inches)						
- total	0.20	0.60	0.44	0.06	1.06	0.60

1. Period of record is December 19, 1996 to May 29, 1997