

NEC3 & WEATHER

By Mark Alberts (Planning Manager)



Weather Under NEC3 – TOPICS

- Initial “Must Do’s”
- How does the weather record & analysis work?
- What weather records need to be recorded?
- How do the records deal with non-work periods/Holidays/Weekends?
- Is potential weather impact on transport to site covered?
- What substantiation is required for cost & time?
- Who holds the weather risk?

Initial “Must Do’s”

- Agree with client/PM measurable weather parameters to be included within the Contract
- Agree with client/PM which weather station will be used to record measurements
- Set up order with Met Office to provide monthly reports (Approx. £300/month)
- Include costs for Met Office reports in prelims for contract duration
- Accepted Programme must include provision for 1 in 10 weather events
- Client is only responsible for weather events in excess of the 1 in 10 records

ECC Contract Requirements

6. Compensation events
- The place where weather is to be recorded is:
Aberdeen Airport, Dyce
 - The weather measurements to be recorded each calendar month are
 - the cumulative rainfall (mm)
 - the number of days with rainfall more than 5mm
 - the number of days with minimum air temperatures less than Zero degrees Celsius
 - the number of days with snow lying at 07:00 hrs GMT
 - the number of hours when the wind speed is more than 23mph
 - the number of hours when wind gusts are over 45mph

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 - The weather measurements are supplied by The Met Office,

Met Office,
Fitzroy Road,
Exeter,
Devon, EX1 3PB,
United Kingdom

e-mailto:enquiries@metoffice.gov.uk
- The weather data are the records of past weather measurements for each calendar month which were recorded at
Aberdeen Airport, Dyce
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ECC NEC3 Monthly Report



NEC Monthly Summary for DYCE (Lat=57.21N Long=2.20W) July 2012

Report issued on Thursday 9 August 2012 10:21

Date	Daily Rainfall total (mm) (000) - (999)	Days of Rain >5mm	Minimum Air Temp (Deg C)	Days with Air Frost	Snow Depth (cm) at 0900 UTC	Days with Snow Lying at 0900 UTC
1	5.0		10.7		0	
2	1.0		9.2		0	
3	2.2		10.9		0	
4	0.4		11.9		0	
5	9		12.0		0	
6	0.2		13.3		0	
7	24.2	1	11.8		0	
8	9		11.0		0	
9	1.6		10.3		0	
10	7.4	1	9.9		0	
11	1.2		9.4		0	
12	0.8		9.1		0	
13	1.8		8.8		0	
14	0.8		8.3		0	
15	6.8	1	8.4		0	
16	0.4		10.1		0	
17	4.0		9.8		0	
18	12.2	1	11.3		0	
19	9		9.3		0	
20	9		9.6		0	
21	0.4		5.1		0	
22	9		12.4		0	
23	1.0		15.0		0	
24	0.4		10.7		0	
25	0.0		12.0		0	
26	9		11.9		0	
27	0.2		11.0		0	
28	14.6	1	9.9		0	
29	4.6		10.1		0	
30	1.4		7.2		0	
31	4.0		8.0		0	
Total	95.6	5		0		0
1-in-10 Year Value	107.0	7		0		0
Long-term average (1981-2010)	81.6	4		0		0

Explanatory notes:

"9" means some data are missing, the no. of hours missing follows the symbol. "0" means no data are available; "Total" means the total; long-term average or 1-in-10 year value is not available or not applicable; "h" means 'hours' of rainfall i.e. less than 0.05mm

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HOW IS WEATHER MEASURED?

If the weather is in excess of the 1 in 10 year data for Dyce, then it is a weather-related compensation event.

- At the start of the project, set up order with Met Office to provide the monthly records for each month (Approx £300/mth)
- Demonstrate impact on the Accepted Programme and show the impact on the Contracted End Date.
- Submit it with a compensation event.

Interesting Issues which often come up

The 10 year base data does not define which day of the week it happened, so clients/PM's cannot discount/reject the defined exceptional weather shown on the monthly reports if they fall on weekends.

The same applies to holiday periods. This often irks clients and PM's, but they cannot discount data over holiday periods for the same reason.

Example of real situation at ECC

At ECC the monthly records over Dec 2010 showed we were entitled to 12 days EOT because of snow. Even though the Accepted Programme showed that we were on holiday for the last week, we were entitled to the full 12 days, and were granted it.

It can also work against us for the same reasons. To use the same example, we may have had the same 22 days of snow, but 10 could have fallen in the last 10 days of December, and the remainder in the first 12 days of January. If the base data for January is 12 days, then we would have been entitled to nothing.

NEC Monthly Summary

Tel: 0670 900 0100 www.inetoffice.gov.uk



DYCE (Lat=57:12N Long=02:12W)

December 2010

Report issued on Thursday January 6 2011 9:20 AM

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DATE	Daily Rainfall (mm) 0600 - 0500	Days of Rain >5mm	Minimum Air Temp (Deg C)	Days with Air Frost	Snow Depth at 0900 GMT (cm)	Days with Snow Lying at 0900 GMT
1	0.2		-3.3	1	22	1
2	tr		-3.2	1	23	1
3	tr		-16.8	1	23	1
4	10.2	1	-10.1	1	22	1
5	0.4		-5.7	1	19	1
6	0.4		-4.4	1	18	1
7	tr		-1.9	1	17	1
8	1.2		-2.0	1	16	1
9	22.2	1	-1.5	1	20	1
10	tr		-3.2		9	1
11	0.4		7.0		0	
12	tr		2.8		0	
13	1.0		1.0		0	
14	tr		3.1		0	
15	3.8		4.6		0	
16	tr		-1.0	1	0	
17	tr		-4.0	1	7	1
18	tr		-12.7	1	5	1
19	tr		-8.2	1	13	1
20	0.4		-2.6	1	13	1
21	0.2		-13.0	1	12	1
22	tr		-15.2	1	12	1
23	tr		-10.6	1	15	1
24	tr		-1.2	1	14	1
25	tr		-8.5	1	15	1
26	0.4		-7.2	1	15	1
27	15.4	1	-7.4	1	11	1
28	2.4		1.7		4	1
29	0.0		3.4		0	
30	0.2		-1.3	1	0	
31	0.8		0.5		0	
Total	60.6	3	n/a	22	n/a	22
Long-term average	73.0	5	n/a	12	n/a	4
1-in-10 Year Value	135.6	8	n/a	20	n/a	10

"tr" means some data are missing, the no. of hours missing follows the symbol. "1" means no data are available. "n/a" means the total, long-term average or 1-in-10 year value is not available or not applicable. "0" means trace of rainfall i.e. less than 0.25mm.

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Other Examples of Weather Risks to Manage

- Depending on station location, it could pour down on site but be dry at the station. Entitlement – nothing!!
- If the bricklaying specification says they can't be laid below 3 degrees C, but the measure for cold weather is set at 0 degrees, then the risk between 3 degrees and 0 is held by the Contractor.
- If off-site materials sourced very remotely from the site are held up due to poor weather, snow at their source etc. **No entitlement.** It's the weather conditions at the station which count! This is another risk the Contractor has to manage without recourse to additional time.

Who holds the weather risk?

- The Contract is duty bound to include for the 1 in 10 weather events within his programme
- The client holds the risk for all measurable weather events in excess of the 1 in 10 statistics.
- If the weather is outside the 10 year average for Dyce then it is a weather related compensation event
- Get the records each month and apply on a monthly basis
- Add any delay to the Contracted End Date
- The 10 year average does not define which day of the week it happened so you can't say the "defined exceptional weather happened at the weekend so not allowed"

FACTS

- Weather analysis is more prescriptive and defined in NEC3 than the likes of JCT contracts
- Weather is measured at the defined weather station in the Contract. This can be some distance from the site.
- Monthly records compare to previous 10 year weather records at that station
- The subjective nature defining “exceptional weather” is not required.

Summary

- The Weather station should be defined in Contract
- Stations are not often close to site and is a risk which needs to be managed
- Set up the order with Met Office for monthly records at the start of the project
- No need to create a claim for “exceptional weather”. A CE is all that is required, and should be produced shortly after availability of the monthly reports
- Weather away from the site is a risk to be managed (Off-site procurement, materials sourced from distance)
- Weather which is not exceptional is a risk to be managed, initially within the programme, and if necessary, additional TRA's

Questions?