

Exposure monitoring of DEE

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Our job

Is everybody safe?

Do we have to take measures?

OELs are fundamental to our work



Question

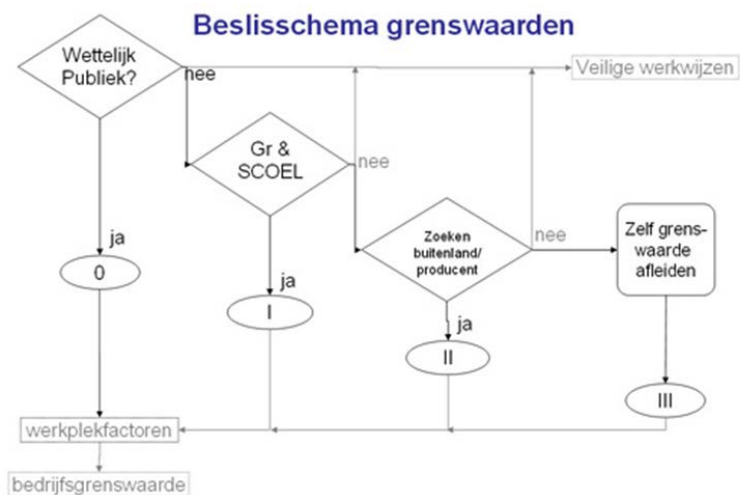


- What is the DEE exposure of employees?
 - Past
 - Present
 - Future



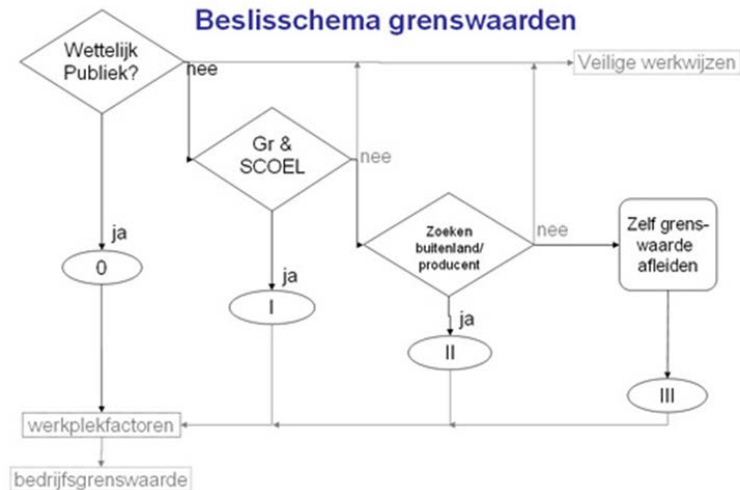
OEL 2016

Component	TGG 8 uur 2016
NO (public OEL)	0,2 ppm (0,25 mg/m ³)
NO ₂ (public OEL)	0,21 ppm (0,40 mg/m ³)
EC (private OEL)	Company: 16 µg/m ³ Advise: 10 µg/m ³



OEL 2019

Component	TGG 8 uur 2016	TGG 8 uur 2019
NO (public OEL)	0,2 ppm (0,25 mg/m ³)	2 ppm (2,5 mg/m ³)
NO ₂ (public OEL)	0,21 ppm (0,40 mg/m ³)	0,5 ppm (0,96 mg/m ³)
EC (private OEL)	Company: 16 µg/m ³ Advise: 10 µg/m ³	GR: 1,03 µg/m ³





What is the DEE exposure of employees?

When?

- Past (Phase 0) based on old measurements NO/NO₂/particles
- Present (Phase 1 and 2) perform measurements
- Future (Phase 3) advise monitoring

Phase 1/2:

- Where?
- Who?



Interesting project – logging

- Who works when/where
- What machines/measures
- What happens outside
- Is everyone wearing the pumps?



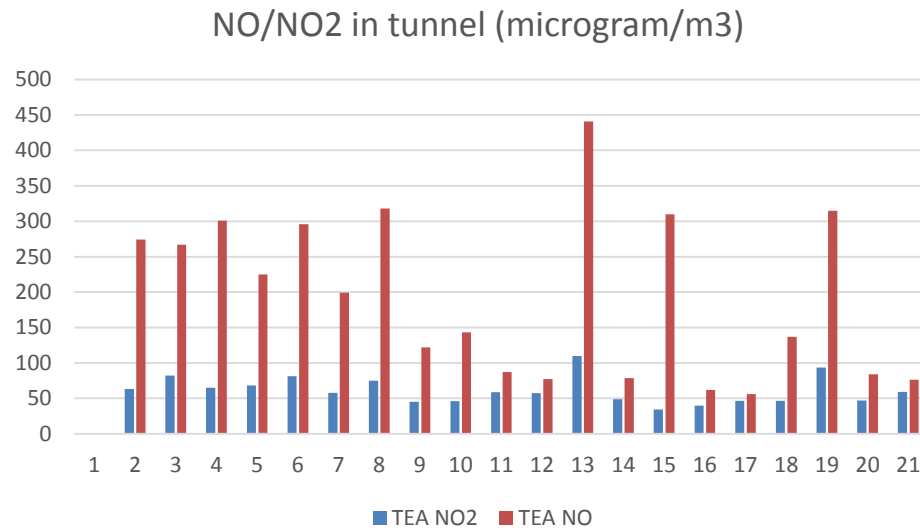
Interesting project – outside situation



Interesting project – measures



Results phase 1 (1)

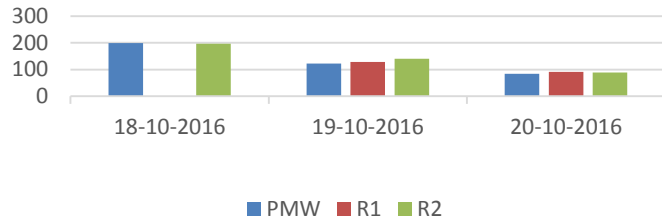


	TGG 8 uur 2016	TGG 8 uur 2019
NO	250 µg/m ³	2500 µg/m ³
NO ₂	400 µg/m ³	960 µg/m ³
EC	Company: 16 µg/m ³ Advise: 10 µg/m ³	GR: 1,03 µg/m ³

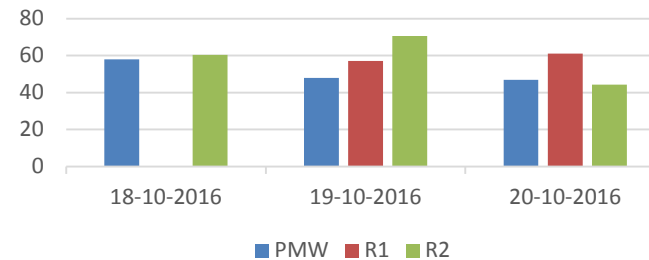


Results phase 1 (2)

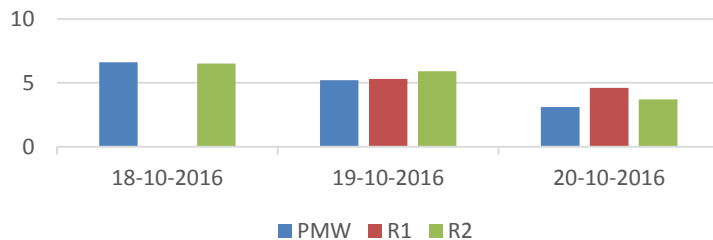
NO concentratie
(in $\mu\text{g}/\text{m}^3$)



NO₂ concentratie
(in $\mu\text{g}/\text{m}^3$)



EC concentratie
(in $\mu\text{g}/\text{m}^3$)



	TGG 8 uur 2016	TGG 8 uur 2019
NO	250 $\mu\text{g}/\text{m}^3$	2500 $\mu\text{g}/\text{m}^3$
NO ₂	400 $\mu\text{g}/\text{m}^3$	960 $\mu\text{g}/\text{m}^3$
EC	Company: 16 $\mu\text{g}/\text{m}^3$ Advise: 10 $\mu\text{g}/\text{m}^3$	GR: 1,03 $\mu\text{g}/\text{m}^3$



Conclusions Phase 1

2016

- DEE is a problem: take measures
- NO exceeds OEL
- To reduce measurements: monitor NO

2019

- DEE is a problem: take measures
 - CE exceeds OEL
 - To reduce measurements: monitor EC
- 



What do you think?

We should've know better

or

Knowing what we know now:
we would've done things differently

