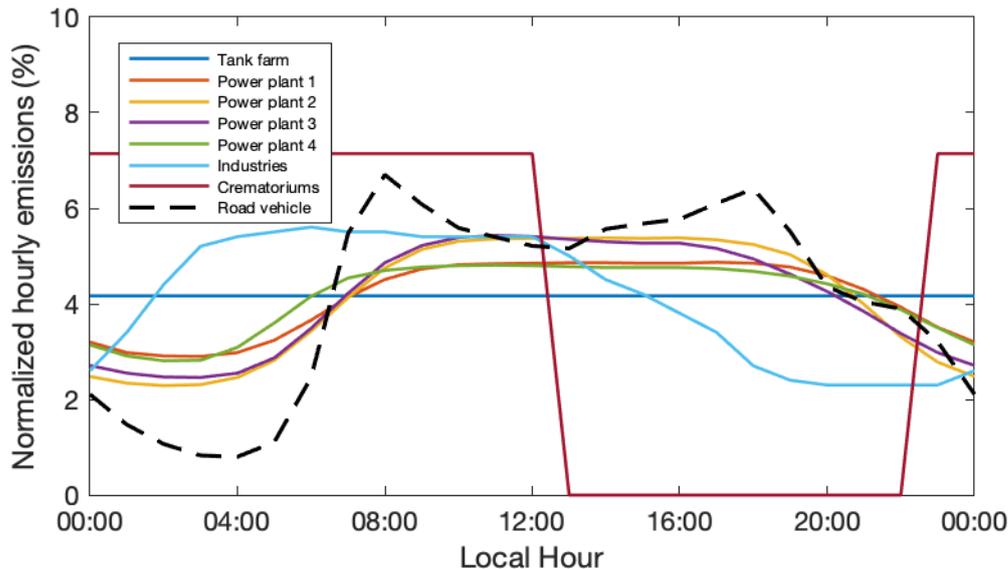


## Responses to Editor's comments

We thank the editor for reviewing the revised manuscript and providing comments for corrections. The point to point responses are listed below:

In you supplementary figure S1: Please denote which color represents what.

**Response: We have added a legend in the Figure S1 to denote the different diurnal profiles.**



**Figure S1.** The diurnal profiles of the road and point emissions. Black dashed line represents the road emissions; colored solid lines represent various point emissions (power plants, industries, crematorium, and tank farms) with different diurnal variations.

Throughout the manuscript: I am confused by your use of PBLH and PBL. Sometimes you seems to use them synonymous, e.g. P29 line 663

**Response: We defined PBL in p2 line37, which is referred to as planetary boundary layer, and PBLH in p9 line 227, which is the height of the PBL. They are not the same, because PBL is used when we talk about the whole boundary layer and PBLH is referred to as the height the PBL can reach (which is a number). PBLH represents the development of the PBL. Therefore, this two terms cannot be combined in the paper. However, as the editor mentioned in P29 line 663, “above the layer” and “above the height of the layer” is the same, so we have modified it to “above the PBL” for consistency.**