

## TM5-MP - Bug #521

### Inconsistent NOx emissions

05/12/2016 08:58 AM - Philippe Le Sager

<b>Status:</b>	New	<b>Start date:</b>	05/12/2016
<b>Priority:</b>	Low	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Spent time:</b>	0.00 hour

#### Description

The problem with NOx

there is no *emission\_nox\_apply*, so the vertical distribution of emissions is done in 'declare' at the beginning of the run, and is used until a new month is started.

There are few issues with that approach:

- you cannot test if cutting a run into chunks give the same results as not cutting it. Note: this is strictly an issue with runs shorter than a month. This can be temporary overcome by switching off NOx emissions (comment the corresponding line in chemistry.F90 around line 1052).
- it does not correctly account for the geopotential height (gph of beginning of the month is used for **every** time step)
- if we want to add a daily/weekly cycle later on

We probably need to add an *emission\_nox\_apply* and call it in *chemie*, and not in *emission\_apply* as it is done for other species.

#### History

#1 - 05/17/2016 08:54 AM - Philippe Le Sager

- Subject changed from *Unconsistent NOx emissions* to *Inconsistent NOx emissions*

#2 - 07/03/2018 12:30 PM - Philippe Le Sager

- Project changed from *TM5-ZOOM* to *TM5-MP*