

AIR POLLUTION IN TUZLA



TPP TUZLA





INDIVIDUAL HOUSEHOLD HEATING



Coal mines and coal TPPs in Federation of BiH

- **FBiH coal mines annually produce cca. 7.000.000 tones of coal (lignite)**
- **In average, 84% of produced coal is burned in Tuzla and Kakanj TPPs, 13,5% in other industry and households and 2,5% is exported.**
- **Annually TPP Tuzla emits between 50.000 to 70.000 tones of SO₂.**
- **Official data published by Elektroprivreda for 2016 state that TPP Tuzla emitted 5.861 tones of NO_x, 66.431 tones of SO₂, 1.017 tones of solid particles and 3.941.042 tones of CO₂ .**
- **Installed capacity of TPP Tuzla is 715 MW (4 blocks out of which the oldest, still operational, one started working in 1966 and the “youngest” one is operational since 1978.**
- **None of the TPPs in BiH has desulphurization equipment installed.**

Study published in November 2013

TET Blocks G3-G6	NO _x	PM _{2.5}	SO ₂	Total
Emissions (tonnes/year)	9,843	1,990	51,661	
Chronic mortality (life years lost)	755	327	3,835	4,918
Infant mortality (1 – 11 months, cases)	0	0	1	1
Chronic bronchitis, population aged >27, cases	35	15	180	231
Respiratory hospital admissions, all ages	3	1	13	17
Cardiac hospital admissions, all ages	24	10	122	157
Restricted activity days (RADs) working age	76,571	33,154	388,748	498,473
Work loss days	20,124	8,713	102,171	131,008
Child asthma	1,895	820	9,620	12,335
Child bronchitis	178	76	892	1,143

Converting the pollution health impacts in to monetary equivalent shows that TPP Tuzla generates annual health externality expenses in the range of 99 million EUR / year.

**HEALTH IMPACTS OF COAL FIRED POWER
GENERATION IN TUZLA**

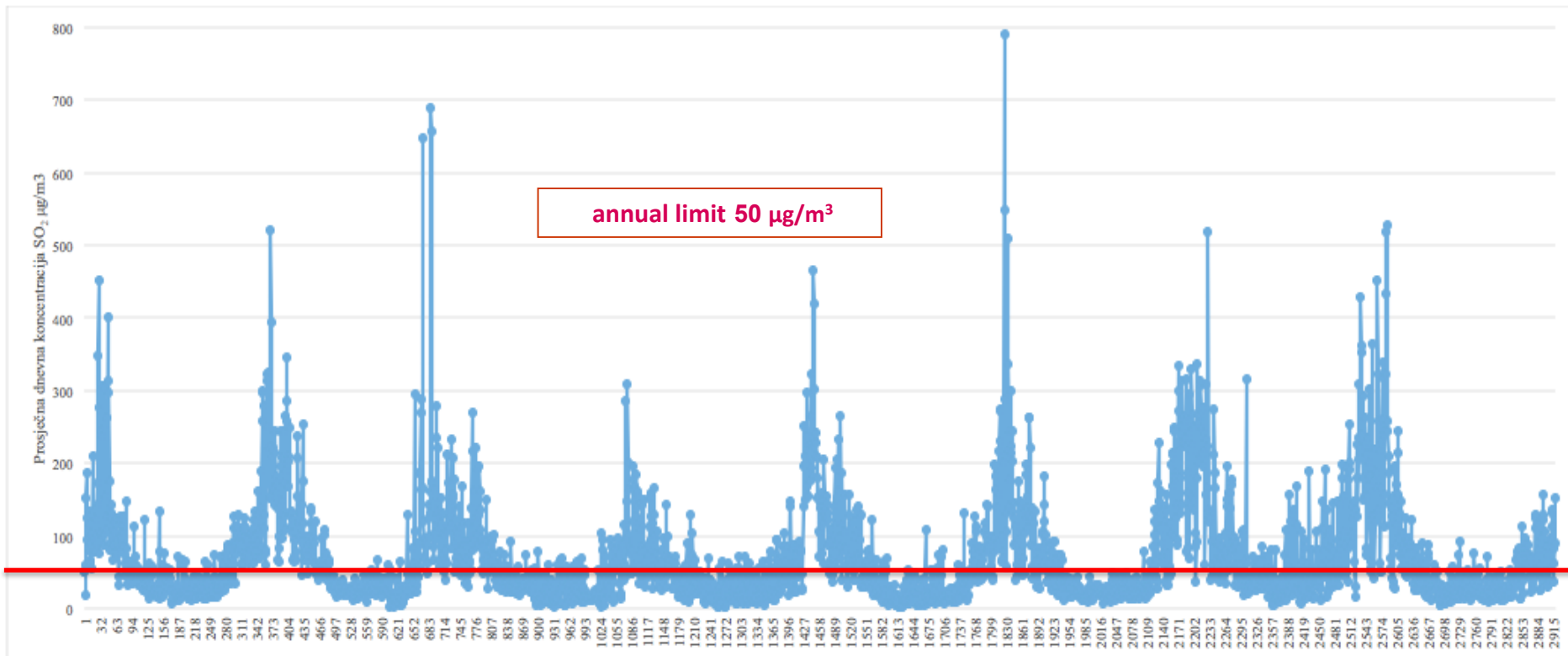
DEMONSTRATIONS IN FRONT OF TPP TUZLA NOVEMBER 2013



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- New legislation.
- 0,0015 KM per kWh of produced electricity
- Implementation started on 01.01.2015.
- In average annually 2.5 mil EUR for Tuzla municipality budget.

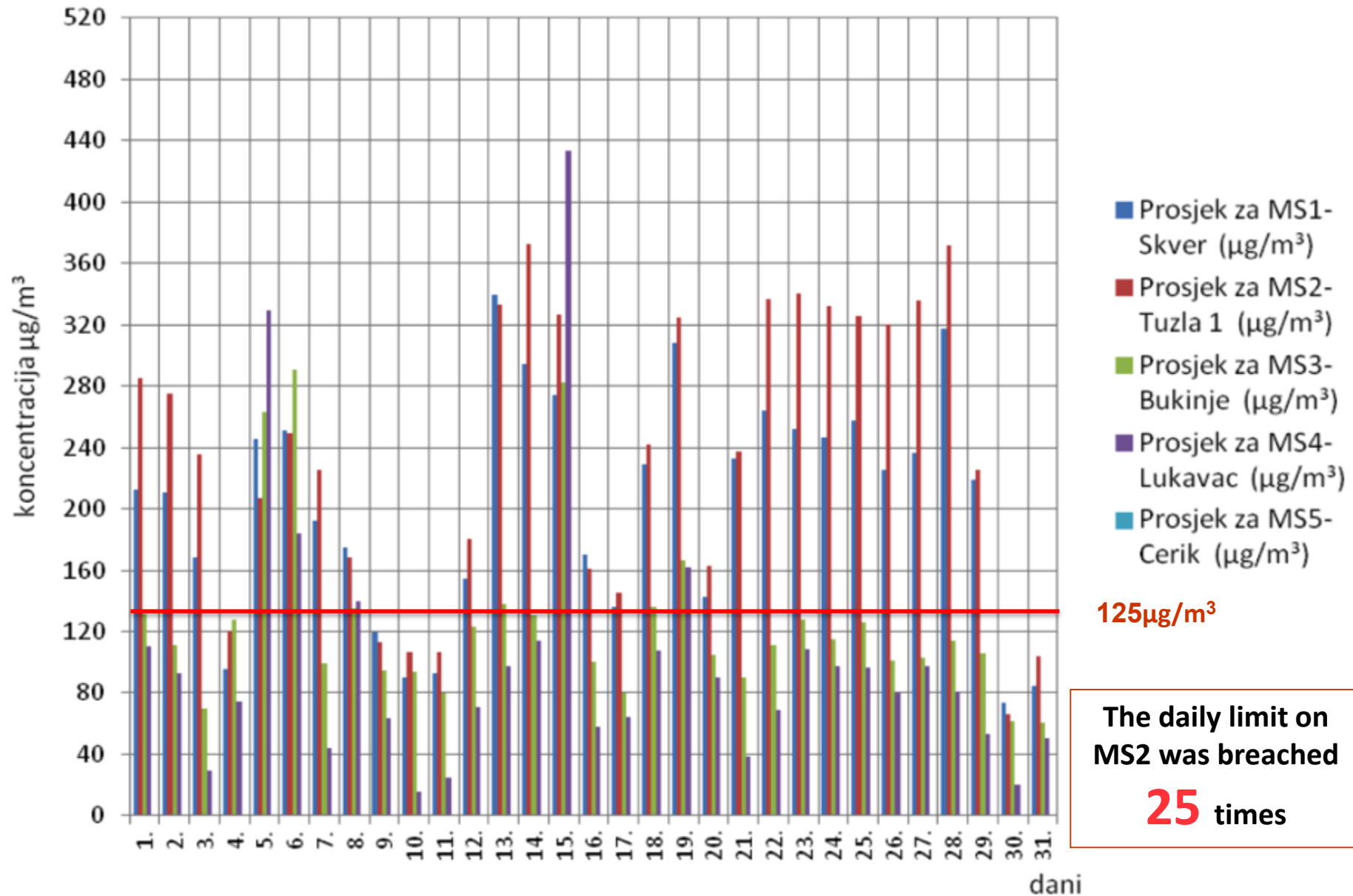
Average daily concentrations of SO₂ on Tuzla MS 1 2010 - 2017



Slika 1.5. Vremenska serija prosječnih dnevni koncentracija SO₂ na mjernoj stanici Skver za period 2010-2017. godina

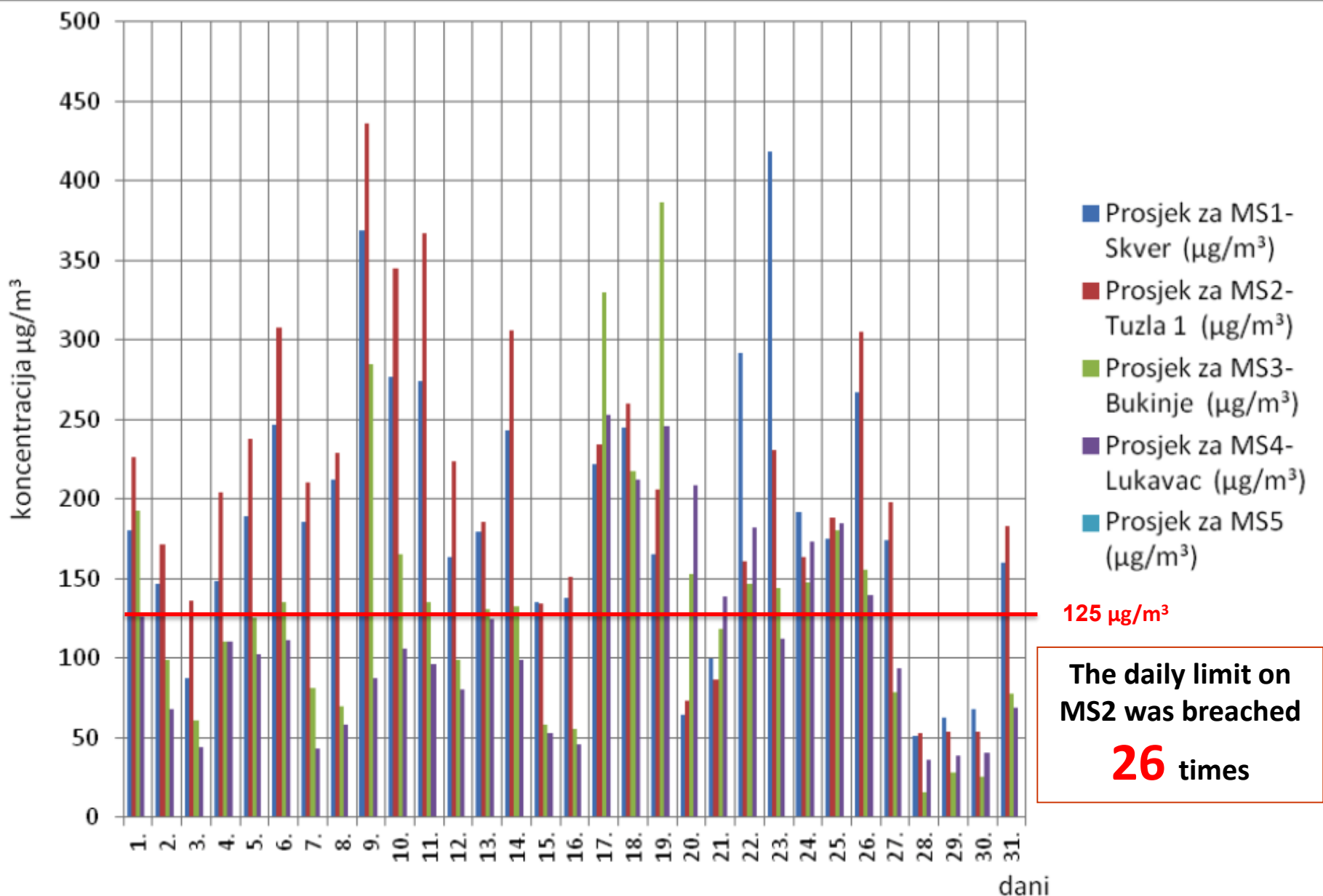
Average daily concentrations of SO₂ on Tuzla MS in December 2015.

The allowed number of breaches is **3 times in one year**.

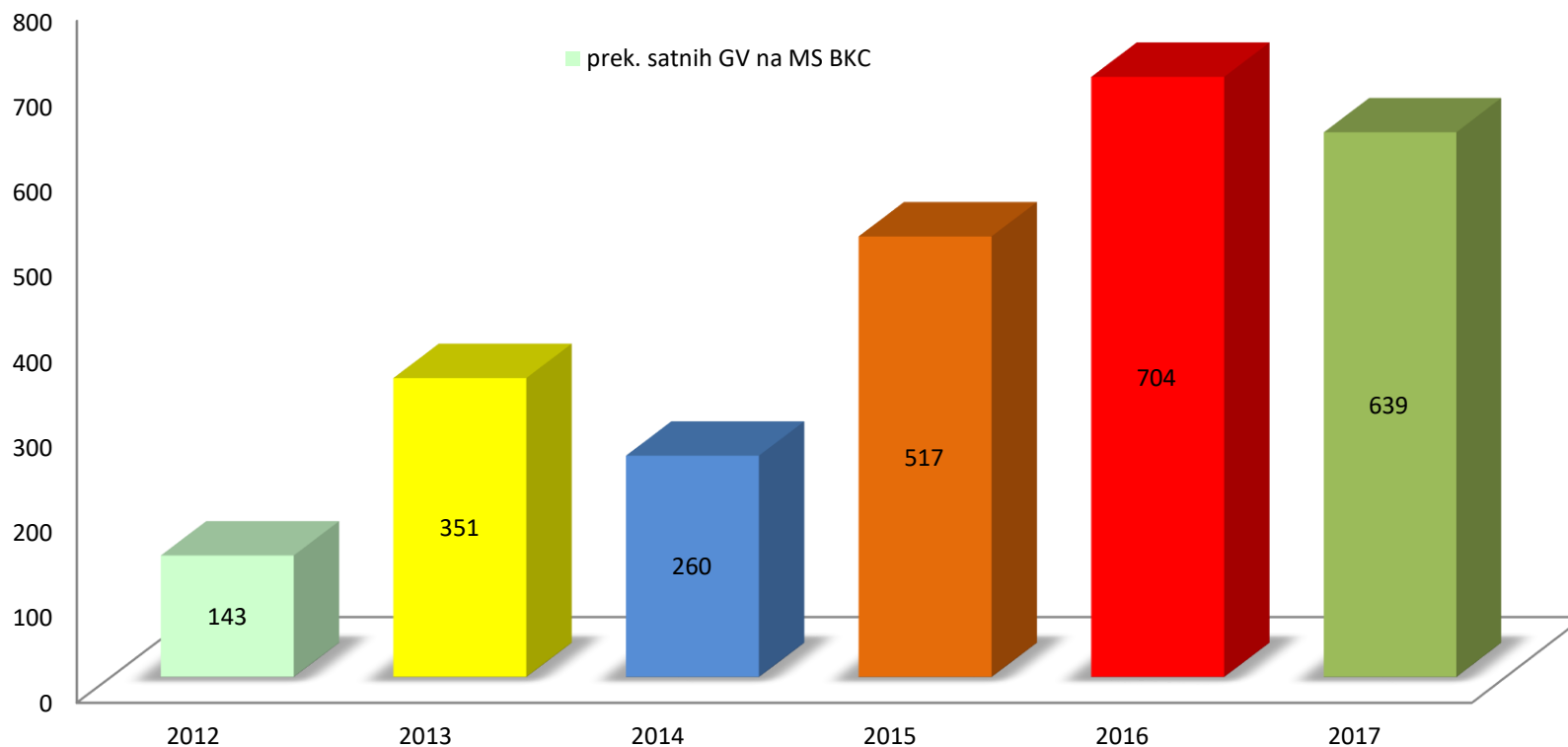


Average daily concentrations of SO₂ on Tuzla MS in December 2016.

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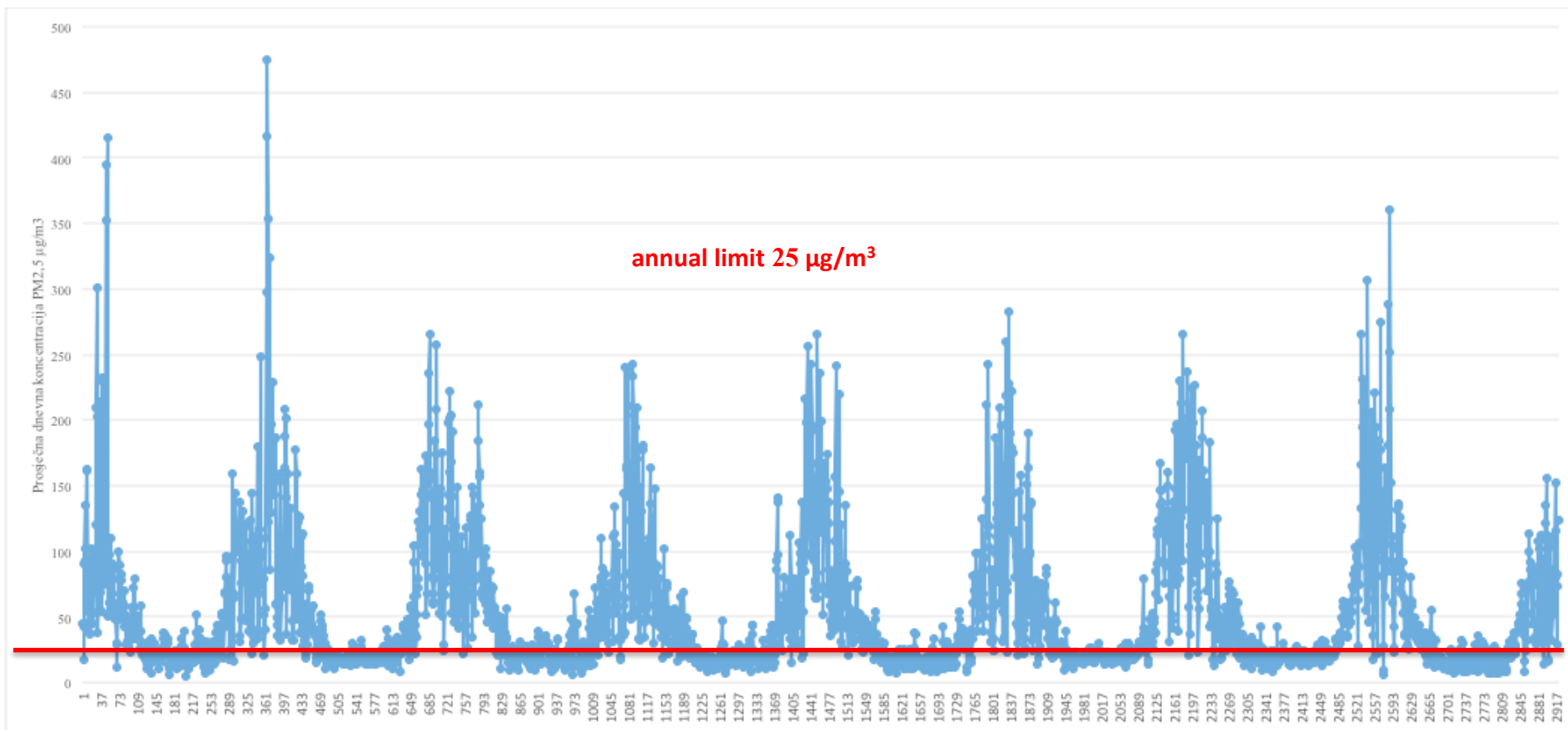


Overview of breached SO₂ 350 µg/m³ hourly limit on MS 2 2012, 2013, 2014, 2015, 2016 and 2017.



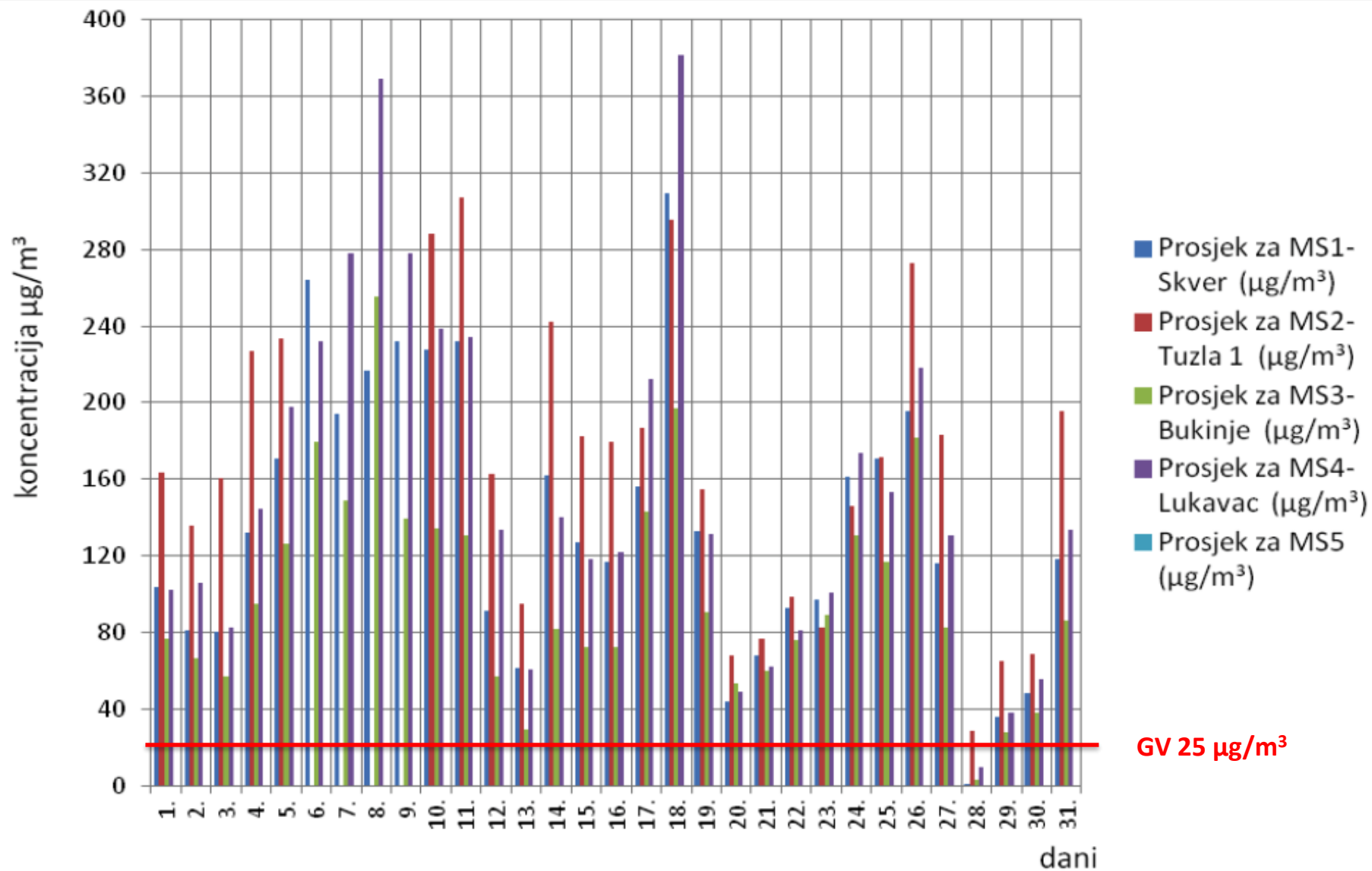
The allowed number of breaches is **24** times in one year

Average daily concentrations of PM 2,5 on Tuzla MS 1 2010. – 2017.

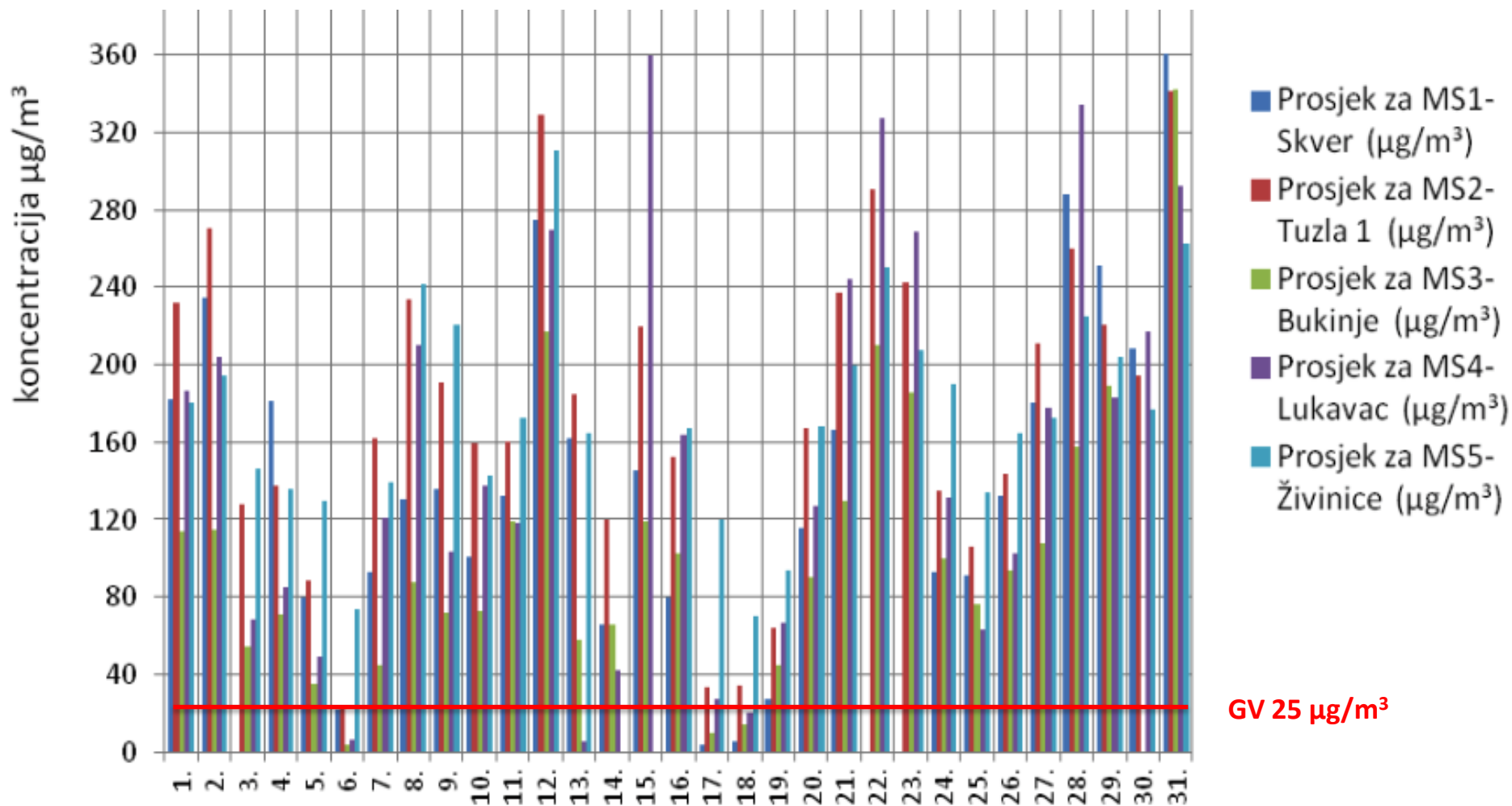


Slika 1.7. Vremenska serija prosječnih dnevnih koncentracija PM_{2,5} na mjernoj stanici Skver za period 2010-2017. godina

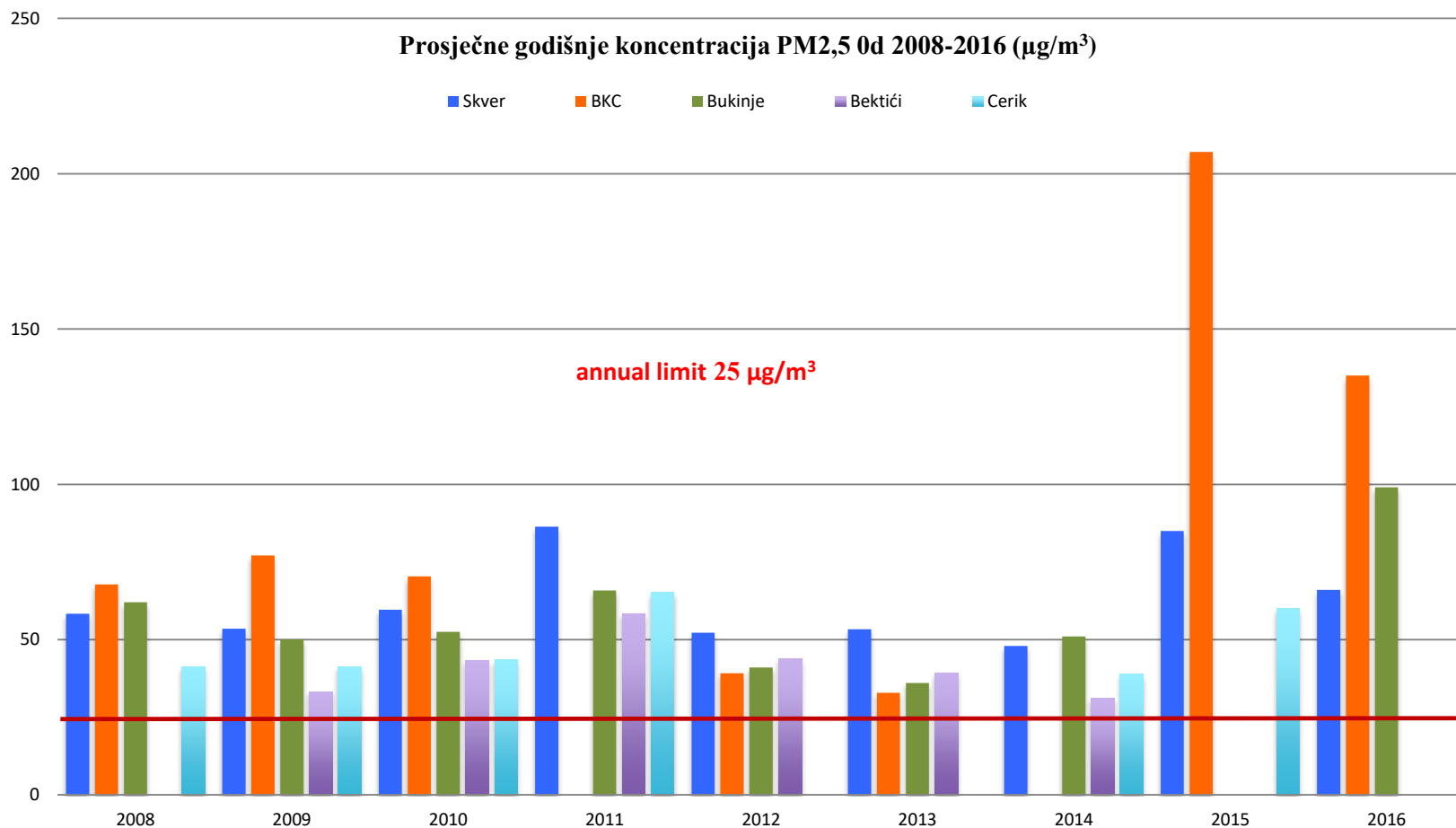
Average daily concentrations of PM 2,5 December 2016.



Average daily concentrations of PM 2,5 January 2017.



Average annual concentrations of PM 2,5 ($\mu\text{g}/\text{m}^3$) on Tuzla MS 2008 - 2016



During 2015. on MS 1 (Skver) there were 194 valid daily measurements and on MS 2 (BKC) only 30
During 2016. on MS 1 (Skver) there were 196 valid daily measurements and on MS 2 (BKC) only 72

DEMONSTRATIONS FOR CLEAN AIR IN TUZLA FEBRUARY 2018



Thank you.



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