We were unable to submit our code as a netlogo3D file, but it can be copied into netlogo3D on your end. Please still consider this as an Agent Based Modeling/Netlogo Model submissions.

```
Extensions [
    profiler
]

Patches-own [
    Surface TiO2
    w-direction w-speed
    s-close
    smog nsmog
    tempsmog
    Restriction
    strue tcount
    s-temp d-temp
]

Globals [
    osmog scount
]

Breed [
    sun
]

to Setup
    clear-all
    reset-ticks
    ask patches [
        set restriction (count neighbors6 with [surface = true])
    ]
    run [
        Roads
        Buildings
        Placement
        Wind-set
    ]
    repeat world-width [
        run [
```

```
            Direction-set
        ]
    ]
    run [
        sclose
    ]
    ask patches [
        if count neighbors4 with [pcolor = grey and surface = true] = 4 and pzcor = 0 [
            ask patch [pxcor] of self [pycor] of self ([pzcor] of self + 1) [
                set smog 100
            ]
        ]
    ]
end

to Simulate
    run [
        Sunlight
        Diffusion
        Removal
    ]
    if ticks = 66 [
        stop
    ]
end

to Roads
    ask patches [
        if pzcor = 0 [
            set pcolor green
            set surface true
        ]
        if pzcor = 0 and pycor >= -1 and pycor <= 1 [
            set pcolor grey
        ]
        if pzcor = 0 and pycor >= 39 and pycor <= 41 [
            set pcolor grey
        ]
        if pzcor = 0 and pycor <= -39 and pycor >= -41 [
            set pcolor grey
        ]
        if pzcor = 0 and (pycor = 79 or pycor = 80 or pycor = -79 or pycor = -80) [
            set pcolor grey
        ]
```

```
        if pzcor = 0 and pxcor >= -1 and pxcor <= 1 [
            set pcolor grey
        ]
        if pzcor = 0 and pxcor >= 37 and pxcor <= 39 [
            set pcolor grey
        ]
        if pzcor = 0 and pxcor <= -37 and pxcor >= -39 [
            set pcolor grey
        ]
        if pzcor = 0 and (pxcor = 75 or pxcor = 76 or pxcor = -75 or pxcor = -76) [
            set pcolor grey
        ]
    ]
end

to Buildings
    ask patches [
        if pzcor <= 22 [
            if (pxcor > 20 and pxcor < 36) and (pycor > 21 and pycor < 38) [
                set pcolor grey
                set surface true
            ]
        ]
        if pzcor <= 18 [
            if (pxcor > 2 and pxcor < 19) and (pycor > 2 and pycor < 20) [
                set pcolor grey
                set surface true
            ]
        ]
        if pzcor <= 14 [
            if (pxcor > -36 and pxcor < -20) and (pycor > -78 and pycor < -42) [
                set pcolor grey
                set surface true
            ]
        ]
        if pzcor <= 12 [
            if (pxcor > -25 and pxcor < -14) and (pycor > -38 and pycor < -2) [
                set pcolor grey
                set surface true
            ]
        ]
        if pzcor <= 10 [
            if (pxcor > 40 and pxcor < 57) and (pycor > 61 and pycor < 78) [
                set pcolor grey
```

```
            set surface true
        ]
    ]
    if pzcor <= 8 [
        if (pxcor > -36 and pxcor < -25) and (pycor > -38 and pycor < -2) [
            set pcolor grey
            set surface true
        ]
        if (pxcor > 58 and pxcor < 74) and (pycor > 42 and pycor < 60) [
            set pcolor grey
            set surface true
        ]
    ]
    if pzcor <= 7 [
        if (pxcor > 40 and pxcor < 57) and (pycor > 42 and pycor < 60) [
            set pcolor grey
            set surface true
        ]
        if (pxcor > 2 and pxcor < 36) and (pycor >= -20 and pycor < -2) [
            set pcolor grey
            set surface true
        ]
        if (pxcor > 2 and pxcor < 19) and (pycor > -38 and pycor <= -21) [
            set pcolor grey
            set surface true
        ]
    ]
    if pzcor <= 6 [
        if (pxcor > 40 and pxcor < 57) and (pycor > 2 and pycor < 38) [
            set pcolor grey
            set surface true
        ]
        if (pxcor > 2 and pxcor <= 13) and (pycor > 42 and pycor < 78) [
            set pcolor grey
            set surface true
        ]
        if (pxcor >= 14 and pxcor <= 24) and (pycor > 42 and pycor < 60) [
            set pcolor grey
            set surface true
        ]
        if (pxcor >= 25 and pxcor < 36) and (pycor > 42 and pycor < 78) [
            set pcolor grey
            set surface true
        ]
```

```
]
if pzcor <= 5 [
    if (pxcor > -14 and pxcor < -2) and (pycor > -38 and pycor < -2) [
        set pcolor grey
        set surface true
    ]
    if (pxcor > 40 and pxcor < 57) and (pycor > -38 and pycor < -2) [
        set pcolor grey
        set surface true
    ]
    if (pxcor > 40 and pxcor < 57) and (pycor > -60 and pycor < -42) [
        set pcolor grey
        set surface true
    ]
]
if pzcor <= 4 [
    if (pxcor > -36 and pxcor < -2) and (pycor > 42 and pycor < 78) [
        set pcolor grey
        set surface true
    ]
]
if pzcor <= 3 [
    if (pxcor > 20 and pxcor < 36) and (pycor > -78 and pycor < -42) [
        set pcolor grey
        set surface true
    ]
    if (pxcor > 58 and pxcor < 74) and (pycor > -60 and pycor < -42) [
        set pcolor grey
        set surface true
    ]
    if (pxcor > 58 and pxcor < 74) and (pycor > 2 and pycor < 20) [
        set pcolor grey
        set surface true
    ]
]
if pzcor <= 2 [
    if (pxcor > -19 and pxcor < -2) and (pycor > -60 and pycor < -42) [
        set pcolor grey
        set surface true
    ]
    if (pxcor > 58 and pxcor < 74) and (pycor > 21 and pycor < 38) [
        set pcolor grey
        set surface true
    ]
```

```
            if (pxcor > 58 and pxcor < 74) and (pycor > -38 and pycor < -2) [
                set pcolor grey
                set surface true
            ]
        ]
    ]
end

to Placement
    ask patches [
        if Material = "Bottom" [
            if pzcor <= 2 and pzcor > 0 [
                set pcolor white
                set TiO2 true
            ]
        ]
        if Material = "Middle" [
            if pzcor > 2 and pzcor <= 4 [
                set pcolor white
                set TiO2 true
            ]
        ]
        if Material = "Top" [
            if pzcor > 4 and pzcor <= 22 [
                set pcolor white
                set TiO2 true
            ]
        ]
        if Material = "Full" [
            if pzcor <= 22 and pzcor != 0 [
                set pcolor white
                set TiO2 true
            ]
        ]
    ]
end

To Wind-set
    if Direction-O = "South" [
        ask patches with [pycor = min-pycor and surface != true] [
            set w-direction 3
        ]
    ]
    if Direction-O = "North" [
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```
        ask patches with [pycor = max-pycor and surface != true] [
            set w-direction 4
        ]
    ]
    if Direction-O = "West" [
        ask patches with [pxcor = min-pxcor and surface != true] [
            set w-direction 2
        ]
    ]
    if Direction-O = "East" [
        ask patches with [pxcor = max-pxcor and surface != true] [
            set w-direction 5
        ]
    ]
end

to Direction-set
    ask patches with [surface != true]  [
        if Direction-O = "South" [
            if w-direction = 3 [
                ask patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self  [
                    if surface != true  [
                        set w-direction 3
                    ]
                    if [surface] of (patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self) = true [
                        set w-direction 6
                    ]
                ]
            ]
            if [surface] of (patch ([pxcor] of self - 1) ([pycor] of self - 1) [pzcor] of self) = true and
            (count neighbors4 with [surface = true]) = 0 [
                ask patch ([pxcor] of self - 1) ([pycor] of self) [pzcor] of self [
                    set w-direction 5
                ]
            ]
            if [surface] of (patch ([pxcor] of self + 1) ([pycor] of self - 1) [pzcor] of self) = true and
            (count neighbors4 with [surface = true]) = 0 [
                ask patch ([pxcor] of self + 1) ([pycor] of self) [pzcor] of self [
                    set w-direction 2
                ]
            ]
            if w-direction = 6 [
                ask patch [pxcor] of self [pycor] of self ([pzcor] of self - 1) [
                    if surface != true [
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```
                set w-direction 6
            ]
        ]
    ]
]
if Direction-O = "North" [
    if w-direction = 4 [
        ask patch [pxcor] of self ([pycor] of self - 1) [pzcor] of self [
            if surface != true [
                set w-direction 4
            ]
            if [surface] of (patch [pxcor] of self ([pycor] of self - 1) [pzcor] of self) = true [
                set w-direction 6
            ]
        ]
    ]
    if [surface] of (patch ([pxcor] of self - 1) ([pycor] of self + 1) [pzcor] of self) = true and
    (count neighbors4 with [surface = true]) = 0 [
        ask patch ([pxcor] of self - 1) ([pycor] of self) [pzcor] of self [
            set w-direction 5
        ]
    ]
    if [surface] of (patch ([pxcor] of self + 1) ([pycor] of self + 1) [pzcor] of self) = true and
    (count neighbors4 with [surface = true]) = 0 [
        ask patch ([pxcor] of self + 1) ([pycor] of self) [pzcor] of self [
            set w-direction 2
        ]
    ]
    if w-direction = 6 [
        ask patch [pxcor] of self [pycor] of self ([pzcor] of self - 1) [
            if surface != true [
                set w-direction 6
            ]
        ]
    ]
]
if Direction-O = "West" [
    if w-direction = 2 [
        ask patch ([pxcor] of self + 1) [pycor] of self [pzcor] of self [
            if surface != true [
                set w-direction 2
            ]
            if [surface] of (patch ([pxcor] of self + 1) [pycor] of self [pzcor] of self) = true [
                set w-direction 6
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```
            ]
        ]
    ]
    if [surface] of (patch ([pxcor] of self - 1) ([pycor] of self - 1) [pzcor] of self) = true and
    (count neighbors4 with [surface = true]) = 0 [
        ask patch ([pxcor] of self) ([pycor] of self - 1) [pzcor] of self [
            set w-direction 4
        ]
    ]
    if [surface] of (patch ([pxcor] of self - 1) ([pycor] of self + 1) [pzcor] of self) = true and
    (count neighbors4 with [surface = true]) = 0 [
        ask patch ([pxcor] of self) ([pycor] of self + 1) [pzcor] of self [
            set w-direction 3
        ]
    ]
    if w-direction = 6 [
        ask patch [pxcor] of self [pycor] of self ([pzcor] of self - 1) [
            if surface != true [
                set w-direction 6
            ]
        ]
    ]
]
if Direction-O = "East" [
    if w-direction = 5 [
        ask patch ([pxcor] of self - 1) [pycor] of self [pzcor] of self [
            if surface != true [
                set w-direction 5
            ]
            if [surface] of (patch ([pxcor] of self - 1) [pycor] of self [pzcor] of self) = true [
                set w-direction 6
            ]
        ]
    ]
    if [surface] of (patch ([pxcor] of self + 1) ([pycor] of self - 1) [pzcor] of self) = true and
    (count neighbors4 with [surface = true]) = 0 [
        ask patch ([pxcor] of self) ([pycor] of self - 1) [pzcor] of self [
            set w-direction 4
        ]
    ]
    if [surface] of (patch ([pxcor] of self + 1) ([pycor] of self + 1) [pzcor] of self) = true and
    (count neighbors4 with [surface = true]) = 0 [
        ask patch ([pxcor] of self) ([pycor] of self + 1) [pzcor] of self [
            set w-direction 3
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```
                ]
            ]
            if w-direction = 6 [
                ask patch [pxcor] of self [pycor] of self ([pzcor] of self - 1) [
                    if surface != true [
                        set w-direction 6
                    ]
                ]
            ]
        ]
    ]
End

to Sclose
    if Direction-O = "North" or Direction-O = "South" [
        ask patches with [surface = true] [
            if [surface] of patch ([pxcor] of self - 6) [pycor] of self [pzcor] of self = true [
                ask patch ([pxcor] of self - 1) [pycor] of self [pzcor] of self [
                    if surface != true [
                        set s-close true
                    ]
                ]
                ask patch ([pxcor] of self - 2) [pycor] of self [pzcor] of self [
                    if surface != true [
                        set s-close true
                    ]
                ]
                ask patch ([pxcor] of self - 3) [pycor] of self [pzcor] of self [
                    if surface != true [
                        set s-close true
                    ]
                ]
            ]
            if [surface] of patch ([pxcor] of self + 6) [pycor] of self [pzcor] of self = true [
                ask patch ([pxcor] of self + 1) [pycor] of self [pzcor] of self [
                    if surface != true [
                        set s-close true
                    ]
                ]
                ask patch ([pxcor] of self + 2) [pycor] of self [pzcor] of self [
                    if surface != true [
                        set s-close true
                    ]
                ]
```

```
            ask patch ([pxcor] of self + 3) [pycor] of self [pzcor] of self [
                if surface != true [
                    set s-close true
                ]
            ]
        ]
    ]
    ask patches with [s-close = true] [
        if Direction-O = "North" [
            set s-temp 0
            while [s-temp != 5] [
                set s-temp s-temp + 1
                ask patch [pxcor] of self ([pycor] of self - s-temp) [pzcor] of self [
                    set s-close true
                ]
            ]
        ]
    ]
    ask patches with [s-close = true] [
        if Direction-O = "South" [
            set s-temp 0
            while [s-temp != 5] [
                set s-temp s-temp + 1
                ask patch [pxcor] of self ([pycor] of self + s-temp) [pzcor] of self [
                    set s-close true
                ]
            ]
        ]
    ]
]
if Direction-O = "East" or Direction-O = "West" [
    ask patches with [Surface = true] [
        if [surface] of patch [pxcor] of self ([pycor] of self - 6) [pzcor] of self = true [
            ask patch [pxcor] of self ([pycor] of self - 1) [pzcor] of self [
                if surface != true [
                    set s-close true
                ]
            ]
            ask patch [pxcor] of self ([pycor] of self - 2) [pzcor] of self [
                if surface != true [
                    set s-close true
                ]
            ]
            ask patch [pxcor] of self ([pycor] of self - 3) [pzcor] of self [
```

```
            if surface != true [
                set s-close true
            ]
        ]
    ]
    if [surface] of patch [pxcor] of self ([pycor] of self + 6) [pzcor] of self = true [
        ask patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self [
            if surface != true [
                set s-close true
            ]
        ]
        ask patch [pxcor] of self ([pycor] of self + 2) [pzcor] of self [
            if surface != true [
                set s-close true
            ]
        ]
        ask patch [pxcor] of self ([pycor] of self + 3) [pzcor] of self [
            if surface != true [
                set s-close true
            ]
        ]
    ]
]
ask patches with [s-close = true] [
    if Direction-O = "West" [
        set s-temp 0
        while [s-temp != 5] [
            set s-temp s-temp + 1
            ask patch ([pxcor] of self + s-temp) [pycor] of self [pzcor] of self [
                set s-close true
            ]
        ]
    ]
]
ask patches with [s-close = true] [
    if Direction-O = "East" [
        set s-temp 0
        while [s-temp != 5] [
            set s-temp s-temp + 1
            ask patch ([pxcor] of self - s-temp) [pycor] of self [pzcor] of self [
                set s-close true
            ]
        ]
    ]
```

```
        ]
    ]
end

to Reset
    ask patches with [pzcor = 0] [
        set strue false
    ]
    ask patches with [pycor > -8 and pycor < -4 and pzcor < 8] [
        set strue false
    ]
    ask patches with [pycor > -2 and pycor < 2 and pzcor < 8] [
        set strue false
    ]
end

to Diffusion
    run [
        Diffusion-E
        Diffusion-WT-2
        Diffusion-WT-5
        Diffusion-WT-3
        Diffusion-WT-4
        Clear
    ]
    tick
end

To Diffusion-E
    ask Patches with [s-close != true and w-direction != 6] [
        if smog > 0.0001 [
            set osmog smog
            ask neighbors6 [
                if surface != true and smog <= 0.0001 [
                    set smog (osmog / (7 - restriction))
                    if smog > .0001 [
                        set pcolor (37 - (smog / 20))
                    ]
                ]
                if smog > 0.0001 [
                    set nsmog smog
                    set smog (nsmog + (osmog / (7 - restriction)))
                    if smog > 100 [
                        set smog 100
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```
                    ]
                    if smog > .0001 [
                        set pcolor (37 - (smog / 20))
                    ]
                ]
            ]
            set smog (osmog / (7 - restriction))
        ]
        if smog > .0001 [
            set pcolor (37 - (smog / 20))
        ]
    ]
end

to Diffusion-WT-2
    set scount 0
    set osmog count patches with [smog > .0001]
    ask patches with [s-close = true and w-direction = 2] [
        if smog > .0001 [
            ask patch ([pxcor] of self + 1) [pycor] of self [pzcor] of self [
                set tempsmog [smog] of patch ([pxcor] of self - 1) [pycor] of self [pzcor] of self
                set scount scount + 1
            ]
            set smog 0
        ]
    ]
    if osmog = scount [
        ask patches with [tempsmog > 0 and s-close = true and w-direction = 2] [
            set smog tempsmog
            set tempsmog 0
            if smog > .0001 [
                set pcolor (37 - (smog / 20))
            ]
        ]
    ]
    ask patches with [surface != true and pxcor != max-pxcor and smog > .0001 and s-close =
    true and w-direction = 2] [
        set osmog smog
        ask neighbors6 [
            set nsmog smog
```

```
            if surface != true and smog < 0.0001 [
                set smog (osmog / (6 - restriction))
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
            if surface != true and smog > 0.0001 [
                set smog (nsmog + (osmog / (6 - restriction)))
                if smog > 100 [
                    set smog 100
                ]
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
        ]
        ask patch ([pxcor] of self - 1) [pycor] of self [pzcor] of self [
            set smog nsmog
        ]
        set smog (osmog / (6 - restriction))
    ]
end

to Diffusion-WT-5
    set scount 0
    set osmog count patches with [smog > .0001]
    ask patches with [s-close = true and w-direction = 5] [
        if smog > .0001 [
            ask patch ([pxcor] of self - 1) [pycor] of self [pzcor] of self [
                set tempsmog [smog] of patch ([pxcor] of self + 1) [pycor] of self [pzcor] of self
                set scount scount + 1
            ]
            set smog 0
        ]
    ]
    if osmog = scount [
        ask patches with [tempsmog > 0 and s-close = true and w-direction = 5] [
            set smog tempsmog
            set tempsmog 0
            if smog > .0001 [
```

```
                set pcolor (37 - (smog / 20))
            ]
        ]
    ]
    ask patches with [surface != true and pxcor != min-pxcor and smog > .0001 and s-close =
    true and w-direction = 5] [
        set osmog smog
        ask neighbors6 [
            set nsmog smog
            if surface != true and smog < 0.0001 [
                set smog (osmog / (6 - restriction))
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
            if surface != true and smog > 0.0001 [
                set smog (nsmog + (osmog / (6 - restriction)))
                if smog > 100 [
                    set smog 100
                ]
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
        ]
        ask patch ([pxcor] of self + 1) [pycor] of self [pzcor] of self [
            set smog nsmog
        ]
        set smog (osmog / (6 - restriction))
    ]
end

to Diffusion-WT-3
    set scount 0
    set osmog count patches with [smog > .0001]
    ask patches with [s-close = true and w-direction = 3] [
        if smog > .0001 [
            ask patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self [
                set tempsmog [smog] of patch [pxcor] of self ([pycor] of self - 1) [pzcor] of self
                set scount scount + 1
            ]
            set smog 0
        ]
    ]
```

```
    if osmog = scount [
        ask patches with [tempsmog > 0 and s-close = true and w-direction = 3] [
            set smog tempsmog
            set tempsmog 0
            if smog > .0001 [
                set pcolor (37 - (smog / 20))
            ]
        ]
    ]
    ask patches with [surface != true and pycor != max-pxcor and smog > .0001 and s-close =
    true and w-direction = 3] [
        set osmog smog
        ask neighbors6 [
            set nsmog smog
            if surface != true and smog < 0.0001 [
                set smog (osmog / (6 - restriction))
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
            if surface != true and smog > 0.0001 [
                set smog (nsmog + (osmog / (6 - restriction)))
                if smog > 100 [
                    set smog 100
                ]
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
        ]
        ask patch [pxcor] of self ([pycor] of self - 1) [pzcor] of self [
            set smog nsmog
        ]
        set smog (osmog / (6 - restriction))
    ]
end

to Diffusion-WT-4
    set scount 0
    set osmog count patches with [smog > .0001]
    ask patches with [s-close = true and w-direction = 4] [
        if smog > .0001 [
            ask patch [pxcor] of self ([pycor] of self - 1) [pzcor] of self [
                set tempsmog [smog] of patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self
```

```
                set scount scount + 1
            ]
            set smog 0
        ]
    ]
    if osmog = scount [
        ask patches with [tempsmog > 0 and s-close = true and w-direction = 4] [
            set smog tempsmog
            set tempsmog 0
            if smog > .0001 [
                set pcolor (37 - (smog / 20))
            ]
        ]
    ]
    ask patches with [surface != true and pycor != min-pxcor and smog > .0001 and s-close =
    true and w-direction = 4] [
        set osmog smog
        ask neighbors6 [
            set nsmog smog
            if surface != true and smog < 0.0001 [
                set smog (osmog / (6 - restriction))
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
            if surface != true and smog > 0.0001 [
                set smog (nsmog + (osmog / (6 - restriction)))
                if smog > 100 [
                    set smog 100
                ]
                if smog > .0001 [
                    set pcolor (37 - (smog / 20))
                ]
            ]
        ]
        ask patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self [
            set smog nsmog
        ]
        set smog (osmog / (6 - restriction))
    ]
end

to Diffusion-WT-6
    set scount 0
```

```
set osmog count patches with [smog > .0001]
ask patches with [w-direction = 6] [
    if smog > .0001 [
        ask patch [pxcor] of self [pycor] of self ([pzcor] of self - 1) [
            set tempsmog [smog] of patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self
            set scount scount + 1
        ]
        set smog 0
    ]
]
if osmog = scount [
    ask patches with [tempsmog > 0 and s-close = true and w-direction = 6] [
        set smog tempsmog
        set tempsmog 0
        if smog > .0001 [
            set pcolor (37 - (smog / 20))
        ]
    ]
]
ask patches with [surface != true and smog > .0001 and w-direction = 6] [
    set osmog smog
    ask neighbors6 [
        set nsmog smog
        if surface != true and smog < 0.0001 [
            set smog (osmog / (6 - restriction))
            if smog > .0001 [
                set pcolor (37 - (smog / 20))
            ]
        ]
        if surface != true and smog > 0.0001 [
            set smog (nsmog + (osmog / (6 - restriction)))
            if smog > 100 [
                set smog 100
            ]
            if smog > .0001 [
                set pcolor (37 - (smog / 20))
            ]
        ]
    ]
    ask patch [pxcor] of self ([pycor] of self + 1) [pzcor] of self [
        set smog nsmog
    ]
    set smog (osmog / (6 - restriction))
]
```

```
end

to Clear
    ask patches [
        if surface != true and smog < .0001 [
            set pcolor [0 0 0 0]
            set smog 0
        ]
        if pxcor = max-pxcor or pxcor = min-pxcor or pycor = max-pycor or pycor = min-pycor or
        pzcor = max-pzcor [
            set smog 0
        ]
        if count neighbors4 with [pcolor = grey and surface = true] = 4 and pzcor = 0 [
            ask patch [pxcor] of self [pycor] of self ([pzcor] of self + 1) [
                ifelse ticks < 21 or ticks > 55 [
                    set smog 100
                ]
                [
                    set smog 25
                ]
            ]
        ]
    ]
end

To Removal
    ask patches [
        if TiO2 = true and strue = true [
           ask neighbors6 [
                set nsmog smog
                if smog > 0 [
                    set smog 0
                ]
            ]
        ]
        if TiO2 = true and strue != true [
            ask neighbors6 [
                set nsmog smog
                if smog > 0 [
                    set smog (.5 * nsmog)
                ]
            ]
        ]
    ]
```

end