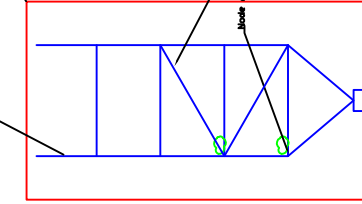


Collapsing of a temporary scaffolding placed in Amer power plant needed for grit blasting of walls of this power plant

Mounted scaffolding inside the Amer power plant to grit blast the outer wall of this plant

Side wall of the Amer power plant



By using closed floors placed on the scaffolding the weight of the grit can cause an unbalance in the scaffolding (green clouds in the drawing). When there is more weight on the left of the scaffolding a resultant horizontal force will arise in node A. For equilibrium a force of the same magnitude working to the other side must be there. Due to the fact that less grit is present near the other side no equilibrium will occur in the scaffolding. A resultant horizontal force in the first floorlevel will be present. This force could be dealt with if the scaffolding was well connected to the walls of the power plant. So every floorlevel should have horizontal beams that connects the floor to the sidewalls of the power plant. Why this was not the case I don't know.

Members in front- and side walls

The arrow on the left of the scaffolding is bigger due to the extra weight on the left of the scaffolding. Due to this an unbalance is present in the scaffolding

For vectorial equilibrium in node A a higher horizontal force is needed compared to the node opposite of node A. Due to the fact that there is no connection to the power plant horizontal equilibrium was not possible which resulted in the collapsing of the scaffolding which killed five people