



Assignment performance report

Name: Ostap Syrotych.

Location: Hoghiz Cement Plant, CRH Romania.

Plant Manager: Dan Sima.

Assignment term: 08 January 2018 – 08 January 2019.

Position during assignment: Process engineer.

Manager: Petre Georgescu, Process Manager.

Background: Electronic engineer, Podilskiy Cement PJSC (1,5 year experience).

Manager: Oleksiy Lavrenyuk, Head of Instrumentation & Control Section.

Junior Electrical Engineer , Podilskiy Cement PJSC (1 year experience).

Manager: Yurii Hrybachov, Chief Power Engineer.

Started to work in CRH as a member of the 1st generation of
CRH Ukraine Internship Program.



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Safety activities, tasks and experience

Activities

Daily safety inspections during Winter Overhaul as a part of inspection team; inspections included :

Observations in Raw Materials Area, Raw Mill Area, Preheater Tower and Kiln, Area of preparation of alternative fuels (check/notice behaviour of workers from safety point of view, correctness of their safety documents, PPE usage).

Safety activities, tasks and experience

Gained knowledge and experience

Noticed and learnt a lot from Romanian engineers and workers behaviour and practices from safety point of view; and Romanian organisation of safe work during my assignment.

Gained knowledge and experience which can be implemented in CRH Ukraine in aspects of : using PPE, transport safety, LOTOC procedure, general aspects of safe work organisation.

Work in process department

Tasks ,responsibilities and work where was involved

1. Ball Mills inspections (Raw Mill and Cement Mills); calculating ball charge.
2. Cement Ball Mills Separator inspections (dynamic separators of the 2nd generation).
3. Kiln inspections to assess bricks wear and Kiln inner condition in time of Kiln stops.
4. Grate Cooler inspections to assess bricks/ castables wear and Cooler inner condition in time of Kiln stops.
5. Preheater tower inspections in time of Kiln stops to assess the cyclones inner condition.



Cement Mill no 3 at Hoghiz Cement Plant



The Kiln at Hoghiz Cement Plant

Work in process department

Tasks ,responsibilities and work where was involved

6. False air measurements and investigations (Preheater Tower, Raw Mill , Coal Mill) on regular basis – each 3 months.

7. Measuring and evaluation of fans work efficiency (Grate Cooler fans, fans of air slides).

8. Preheater Tower and Kiln thermographic inspections: regular (2 times per week) check of temperature of the cyclones surface with thermographic camera and Kiln shell with the Kiln scanner; in order to find buildups and hot spots timely; making reports based on these inspections.

9. Critical sensors check.



Grate Cooler fans at Hoghiz Cement Plant



Preheater Tower thermographic inspection

Work in process department

Tasks ,responsibilities and work where was involved

10. Inspections at the Winter Overhaul (Raw Materials Area,Raw Mill Area, Preheater Tower and Kiln, Area of preparation of alternative fuels): check of the works status ,check of safeness of the works.

11. Process daily work:

Equipment work trends and laboratory reports analysing, process measurements; looking for the reasons of deviations or instabilities if we have some; making action propositions based on that investigations.

Work in process department

Gained knowledge, skills and experience

1. Developed my knowledge and skills in process which were on basic level in the beginning of my assignment, because my previous place of work at Podilsky Cement was an automation department. At the moment I have experience in process inspections , process measurements and calculations, and other process work (described more detailed on previous slides).

2. Have been studying at regular process trainings organised at Hoghiz Cement Plant by highly experienced process engineer Adrian Balan.

At the moment I had trainings by these topics:

Basics of clinker production process.

Fuels and fuels properties.

- Kiln burners.

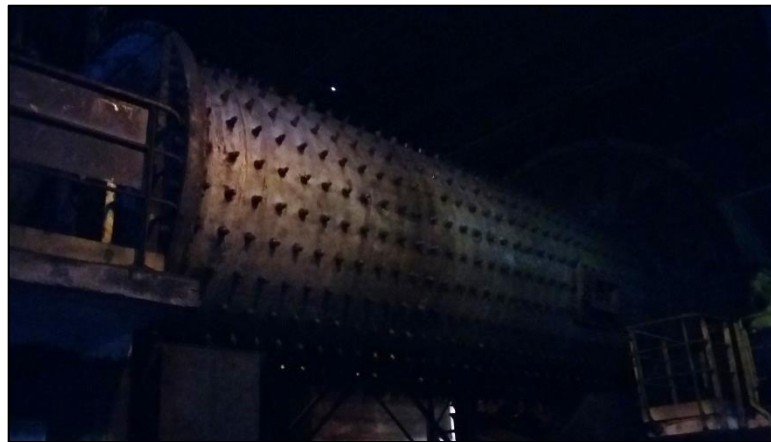
- Volatilization.

The training process is still continuing.

Work in process department

Current planned work in term of assignment

1. False air measurements for the Coal Mill.
2. Preheater Tower and Kiln thermographic inspections on regular basis.
3. Check of all the critical sensors.
4. Process daily work which depends on the situation at the factory.



Coal Mill at Hoghiz Cement Plant

Work in automation department

Tasks ,responsibilities and work where was involved

1. KIMA SmartFill System calibration for 3 Ball Cement Mills (all three with 5.13 m diameter and 15.025 m length);

KIMA SmartFill System Troubleshooting.

KIMA SmartFill System is so called "Electronic Ear" which allows to have information about filling level separately for the 1st and the 2nd chambers of the Mill and the material temperature in the real time.

2. Programming in Siemens Simatic Step 7 (Creating module for a program of automatic calculation of the gap between kiln shell and kiln tyres in the real time).

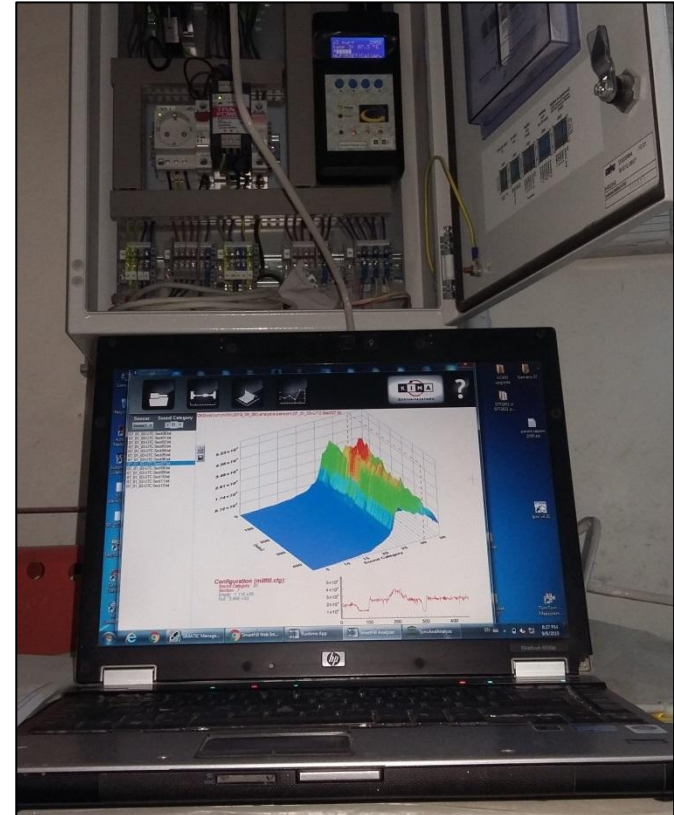


*KIMA SmartFill "On Mill Unit"
on Cement Mill no 3*

Work in automation department

Gained knowledge, skills and experience

1. Gained experience with calibration, troubleshooting and fixing malfunctions with KIMA SmartFill System ("Electronic Ear") .
2. Developed my programming skills in Siemens Simatic Step 7.



*Calibration process for Cement Mill no 2
for cement type II/A-V42.5R*

Work in automation department

Current planned work in term of assignment

1. KIMA SmartFill System ("Electronic Ear") calibration for Ball Cement Mills - need to be calibrated separately for each cement type at each cement Mill which requires time (11 cement types, 3 Cement Mills; calibration process for one type takes 1 whole working day).

I plan to continue the calibration for different cement types; also to describe a detailed procedure of calibration process and to make instruction for problem solving for KIMA to give all my experience gained here to my Romanian colleagues - they will be able to finish overall calibration in case I will not succeed to finish it in next 2 moths; and they also will be able to do next calibrations in the future.

	Cement Mill no 2	Cement Mill no 3	Cement Mill no 4
1	II/A-V42.5R	I42.5R	II/A-V42.5R
2	II/A-LL42.5R	I52.5R	II/A-LL42.5R
3	I52.5R	I52.5R*	I42.5R
4	I52.5R*	II/B-M(S-V)32.5R	II/B-M(S-V)32.5R
5	II/B-M(S-V)32.5R	HRBE3	MULTIBAT MC12.5
6	MULTIBAT MC12.5	II/A-V42.5R	II/A-M(S-LL)42.5R
7	I42.5R	II/B-M(V-LL)42.5R	II/A-S32.5N-LH
8	II/A-M(S-LL)42.5R		
9	II/A-S32.5N-LH		
10	II/B-M(V-LL)42.5R		

List of cement types producing on each of the Cement Mills

Other activities, tasks and experience

1. Stock inventory.
2. Presenting CRH company at Job Fair in Brasov.
3. Took part with other CRH employees in environment care action such as cleaning a river from household waste.
4. Took part in the Cement Day Celebration at CRH Hoghiz Cement factory.



Job Fair in Brasov

Gained and developed Soft Skills

1. Improved my skills of effective communication.
2. Improved my skills in writing technical reports and proposals.
3. Improved my English level.
4. Developed skills of Romanian language (elementary level).
5. Improved my effectiveness in teamwork.
6. Improved my decision making skills.
7. Improved skills in time management.
8. Improved flexibility skills.



Cement Day Celebration, Hoghiz Cement Plant