

An Internship Project Report on Testing of Raw Materials, Intermediate Products and Finished Product at OCL, Rajgangpur

The internship project undertaken by the M.Sc. Chemistry students of Govt. College, Sundargarh, from 03.04.2017 to 08.04.2017, involved 10 students who participated in two batches. The internship project aimed to provide students with an in-depth understanding of the processes and quality control measures involved in cement production. It also aimed to foster a closer connection between academic learning and industry practices.

Objectives:

- To learn about the various raw materials used in cement production.
- To understand the production process, including grinding, blending, and clinker production.
- To gain insights into the testing methods and quality control measures applied at different stages of production.
- To explore the environmental and safety regulations followed by the industry.
- To analyze the role of chemistry in cement production.

Raw Materials Testing:

During the internship, we had the opportunity to witness and participate in the testing of raw materials used in cement production. The following tests were performed:

- Chemical composition analysis of limestone, clay and other raw materials.
- Moisture content determination.
- Particle size analysis.
- Quality assessment of alternative fuels used in the production process.

Intermediate Product Testing:

We also gained hands-on experience in testing intermediate products, particularly the clinker production stage. The following tests and analyses were conducted:

- Clinker composition analysis.
- Setting time tests.
- Physical properties assessment of clinker.
- Heat of hydration measurements.

Finished Product Testing:

The final cement product was subject to various tests to ensure quality and compliance with industry standards. These tests included:

- Chemical analysis of the finished cement product.
- Physical properties testing, including fineness, setting time, and compressive strength.
- Blending and storage considerations for different types of cement.

Environmental and Safety Practices:

We were introduced to the industry's commitment to environmental sustainability and safety measures. The internship provided insights into:

- Pollution control methods and waste management.
- Compliance with government regulations and standards.
- Health and safety protocols for employees.

Conclusion:

The internship project proved to be a highly educational experience for the 10 M.Sc. Chemistry students, as it allowed us to bridge the gap between theoretical knowledge and practical applications in the cement production industry. We extend our gratitude to your organization for providing us with this opportunity.

We are confident that the knowledge and skills acquired during this internship will serve us well in our future careers. The exposure to the industry's best practices, quality control methods and commitment to environmental sustainability will remain invaluable.

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