

MANUFACTURING DEVELOPMENT PROGRAM TRAINING PLAN

Development Area	Skills Developed/Training Received	Purpose/Outcome	Training Resources
Safety/Health	<ul style="list-style-type: none"> • Mining Safety Health Administration Training • Safety Training • Industrial Hygiene 	To introduce the Intern to the importance of employee health and safety.	Cement 101
Production	<ul style="list-style-type: none"> • Familiarization with Equipment • Quarry – Raw Materials Preparation • Pyroprocessing • Cement Grinding • Shipping 	To introduce the Intern to all plant operations from the quarrying of the raw materials to the shipment of the finished product.	PCA Kiln and Magotteaux Mill and Grinding School
Maintenance	<ul style="list-style-type: none"> • Plant Engineering • Purchasing • Computerized Maintenance Management System training • Maintenance Planning • Preventative Maintenance • Maintenance Excellence Program (MEP) Involvement • Electrical and Instrument Training 	To introduce the Intern to the plant maintenance organization.	FLS Maintenance Seminar Phillips Kiln School BHA School Life Cycle Engineering (Asset Care & CMMS) Locite
Laboratory	<ul style="list-style-type: none"> • Raw Materials • Quality Assurance/Quality Control • Cement Testing • Concrete Testing • Research Lab Experience 	To introduce the Intern to the importance of quality assurance and quality control.	Visit Research Lab PCA Cement and Concrete Courses
Environmental	<ul style="list-style-type: none"> • Regulations and Control Technologies for: Air, Water and Solid Waste • Air Water and Solid Waste Operating Permits 	To introduce the Intern to the environmental regulations which are applicable to the cement industry.	PCA and other Environmental Training Environmental Regulators Meeting
Geology & Quarry Planning	<ul style="list-style-type: none"> • Raw Materials • Reserve Evaluation • Land Purchasing/Management • Quarry Planning 	To introduce the Intern to the importance of raw materials to plant operations.	
Process Engineering	<ul style="list-style-type: none"> • Mass & Heat Balances • Gas Flow Measurements • Process Control Architecture • PLC/DCS Training • PLC Interface with HMI • Process Excellence Program (PEP) Involvement 	To introduce the Intern to the fundamentals of process engineering.	FLS Process Engineering School PLC/DCS Training
Sales/Marketing	<ul style="list-style-type: none"> • Sales/Marketing • Transportation/Distribution • Customer Relations 	To introduce the Intern to the principles of sales, marketing, distribution and customer relations.	Accompany a sales representative on company calls
Management	<ul style="list-style-type: none"> • Human Resources • Budgeting/Financial Analysis • General Supervision 	To introduce the intern to general management of plant operations	Karrass Negotiation Seminar

*PCA = Portland Cement Association