

RJA Eases Process of Upgrading Fire Protection Systems at Goodyear Plants Worldwide

Challenge. Goodyear Tire & Rubber Company has experienced major fire losses in several of its worldwide manufacturing facilities, resulting in property loss and business interruption. Fire safety systems in many plants were either not adequately designed or not properly maintained.

Goodyear's insurance providers' annual issue Loss Prevention Reports (LPR) reviews each facility's fire protection systems and forms the basis of Goodyear's insurance costs. Insurers' recommendations for improvements may be extensive, yet vague. Recognizing that they didn't have the manpower to create a master plan for upgrading fire protection systems at many of its plants, Goodyear hired Rolf Jensen & Associates (RJA) to manage this process in numerous locations for the past several years.

RJA always has to be mindful that fire protection upgrades, albeit necessary, may be very expensive. Prior to working with RJA, for example, the Goodyear plant in Colombia installed a fire protection water loop above ground. Although this is a common practice in Colombia, it does not meet National Fire Protection Association (NFPA) seismic requirements. The question becomes, however: does it make good cost sense to replace this water loop?

In other parts of the world, some manufacturing facilities are constructed of lightweight steel, and their sprinkler systems need new pipes to adequately protect the facilities per NFPA. The roofs of these structures, however, may not be able to physically support cast iron pipe. These cases are indicative of the tough engineering and compliance judgment calls that Goodyear asks RJA to make on its behalf.

Solution. During the first phase of each project, master planning, RJA reviews the LPRs and surveys the facility. RJA evaluates codes in relation to the Goodyear Fire Protection Policy to determine the most appropriate means of protection for each hazard within the plant and validates LPR recommendations relative to minimum code requirements or best practices.

RJA provides specifications on a conceptual level and budgets the cost of these specifications on an annual basis for Goodyear's capital expenditure reports. RJA produces a full report that includes a hazard analysis, responses to each LPR recommendation, protection recommendations for each hazard, contractor evaluations, projected budgets and recommended implementation schedules.

Knowing that it's too costly and disruptive to completely shut down manufacturing plants for a system upgrade, RJA prioritizes a schedule of compliance for each plant over the course of about three to five years. This includes setting design parameters for a phased implementation.

RJA has completed phase one for about a dozen Goodyear locations and has brought three Latin American plants and five Asia Pacific plants into the next phase: design.

In the design phase, RJA creates conceptual drawings and assists in the bid procurement process with local or international subcontractors. RJA selects the appropriate subcontractors and later reviews their shop drawing submittals.

Result. Goodyear facilities around the world are paying millions of dollars to upgrade their fire protection systems, and RJA works hard to ease the burden of this process for individual facility managers. Goodyear's corporate initiative to appropriately protect its people and assets in facilities around the world has brought costs and untold complications to the local level. RJA facilitates and manages this complex process for each project location, which removes such headaches as dealing with subcontractors and fending off a storm of change orders.

RJA has been able to differentiate itself in the global marketplace by consulting with Goodyear on cost-effective and location-sensitive fire and life safety systems. RJA's work in India, Taiwan, Latin America and other countries and regions of the world will likely open up new opportunities for RJA.



- Code Consulting
- Fire Protection Design



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