

## The Situation

Netherlands and US based pharmaceutical firm (client) sought assistance with cGMP audits of contract sites, including Drug Substance (DS) and Drug Product (DP) suppliers, manufacturing facilities, stability testing labs, packaging sites, analytical testing labs, and warehouse and distribution centers.

An exhaustive gap analysis was performed to identify additional tasks, with an emphasis on Quality System infrastructure SOPs, specifications, technical agreements, master batch records, annual product reviews (APR), a central filing system for cGMP records, product transfer and validation strategies, personnel training programs, product complaint investigations, and readiness for a FDA inspection

## The Solution

Protocol Link provided subject-matter experts to maximize efforts and accomplish a series of compliance initiatives during the specified project schedule in connection with the completion of a Gap Analysis, cGMP Audits, Quality Assurance (QA), and Technical Services.

Tracking of the project status was provided through frequent status reports, project memoranda, and conference calls with the client representatives during project execution. The entire project spanned a time period of 14-16 months.

**Gap Analysis** - Initiated a Gap Analysis by developing a cGMP compliance matrix of FDA and DEA requirements in connection with pharmaceutical operations. This effort included preparing a comprehensive listing of the requirements for regulatory compliance and the following specific tasks:

- Analyzed the matrix to indicate the ownership needed to satisfy the regulatory requirements.
- Categorized each requirement against a traceability matrix covering specifications, SOPs, master batch record, batch records, regulatory/QA records, log records, or audit records.
- Implemented a strategy document describing proposed compliance plan and schedule in support of the business operations.
- Developed a Quality System Action Plan to integrate elements and results of the gap analysis per the cGMP compliance matrix and a milestone schedule for phased implementation.

**cGMP Audits** - Conducted cGMP Compliance Audits of contract sites within the U.S., Puerto Rico, Mexico, and Europe. Contract sites audited included DS and DP suppliers, manufacturing facilities, stability testing labs, packaging sites, analytical testing labs, and warehouse and distribution centers as summarized below:

- A total of 13 contract sites were audited within a 14-month window: 9 in the United States, 1 in Puerto Rico, 1 in Mexico and 2 in Europe (France and Belgium).
- Audit activity included pre-audit preparation, an average of 2-3 days on-site audit, the audit kickoff and closeout meetings, and development of a final audit report summarizing the auditor's observations.

**Quality Assurance (QA)** - Assumed responsibilities of QA Management. The scope of work was to provide quality assurance, quality control, and cGMP compliance consulting for US-NDA product as listed below:

- Assistance in creation and maintenance of master batch records, SOPs, and specifications in support of production and packaging operations.
- Administration of QA policies and procedures in support of ongoing cGMP compliance.
- Review and approval of change approval records (CARS).
- QA implementation of proposed labeling / packaging changes.
- Management and assistance with on-market stability data review and disposition.
- Coordination and management of the clinical stability program.
- Development of annual product review (APR).

**Technical Services** - Additional Technical Services and other significant deliverables are listed below. :

- Review, approvals and implementation of SOPs
- Quality systems specifications
- Technical agreements for contract vendors
- Central file setup for cGMP records
- Warehousing and distribution systems reviews
- Annual product reviews
- cGMP training
- Product compliance assessment
- FDA liaison and inspection assistance
- Product recall management

## The Result

Protocol Link successfully completed 100% of the planned effort associated with the entire project scope.