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AS PURCHASING CONTROLS BECOME AN FDA HOT TOPIC, IT'S TIME TO ASSESS HOW WELL YOU ARE MANAGING YOUR SUPPLIERS

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AS PURCHASING CONTROLS BECOME AN FDA HOT TOPIC, IT'S TIME TO ASSESS HOW WELL YOU ARE MANAGING YOUR SUPPLIERS By Edward C Wilson, Jr and Michael S Heyl

Imagine that your company recently landed a major contract to manufacture the new blockbuster technology that your US customer just received clearance to market in the USA. Your company was picked because of its stellar quality reputation and ability to contain costs by outsourcing highly manual processes. Things appear to be going well until your customer informs you that several shipments of your product have been detained by US Customs and Border Protection Agents. When your customer receives the paperwork, they notice that the product was detained because it is 'adulterated' in accordance with the *Federal Food, Drug, and Cosmetic Act* (FFD&C Act). Your customer also informs you that the Food and Drug Administration (FDA) has issued an Import Alert that prohibits the importation of your product into the US until problems are fixed at your plant. You are struggling to understand how this could have happened.

FDA scrutiny of device manufacturers' compliance with the Purchasing Control and Acceptance Activity requirements of the Quality System Regulation (QSR) is on the rise. For example, in 2008, the FDA was notified of an increase of adverse events and subsequent recalls of devices that were coated with contaminated heparin. After receipt of this information, the FDA launched an extensive investigation and linked the source of the heparin to a supplier and second-tier suppliers in China. Several companies who received heparin from this supplier were forced to recall products. In April 2008, the FDA released a notice to manufacturers and initial distributors of medical devices that may contain heparin or are heparin coated. In that document, the Agency stated, '[i]t is your responsibility under 21 CFR [Code of Federal Regulations] 820.50 [Purchasing Controls] and 820.80 [Acceptance Activities] to have purchasing controls and acceptance activities in place that provide reasonable assurance of the safety and effectiveness of your device'1.

Scope of this article...

This article focuses on the Purchasing Control provisions of the FDA's QSR; recent developments regarding enforcement of those requirements; international guidance aimed at helping manufacturers exercise appropriate control over third-party suppliers; and tips to ensure compliance with FDA's Purchasing Control requirements. In the hypothetical example above, the US customer, as the specification developer, must exert purchasing controls over the products and services that the manufacturer provides. In turn, if this blockbuster technology is a finished device, the contract

FDA scrutiny of manufacturers' compliance with Purchasing Control and Acceptance Activity requirements is on the rise manufacturer also has purchasing control obligations with respect to the firms it uses to outsource manufacturing processes.

Purchasing Control and Acceptance Activity Provisions of the QSR

The QSR requires that domestic and foreign medical device manufacturers have a quality system in place for the design, manufacture, packaging, labelling, storage, installation and servicing of finished medical devices intended for commercial distribution in the USA². Although manufacturers of finished medical devices are required to comply with all applicable provisions of the QSR, suppliers of components and sub-assemblies are not always independently required to comply with the QSR. Thus, to assure the quality of outsourced components, products or services (hereinafter 'Products and Services'), the QSR imposes Purchasing Control requirements on the finished device manufacturer. The degree of supplier control necessary to establish compliance may vary with the type and significance of the Products and Services purchased and the impact of those Products and Services on the quality of the finished device³. Depending upon the circumstances, these controls may range from minimal to stringent. A finished device manufacturer may even contractually require a supplier to comply with all provisions of the QSR. The FDA has described its Purchasing Control requirements as follows:

'To ensure purchased or otherwise received product or services conform to specifications, purchasing must be carried out under adequate controls, including the assessment and selection of suppliers, contractors, and consultants, the clear and unambiguous specification of requirements, and the performance of suitable acceptance activities. Each manufacturer must establish an appropriate mix of assessment and receiving acceptance to ensure products and services are acceptable for their intended uses.

Under the requirements, manufacturers must clearly define in the procedures the type and extent of control they intend to apply to products and services. Thus, a finished device manufacturer may choose to provide greater in-house [acceptance] controls to ensure that products and services meet requirements, or may require the supplier to adopt measures necessary to ensure acceptability, as appropriate...Where audits are not practical, this may be done through, among other means, reviewing historical data, monitoring and trending, and inspection and testing'³.

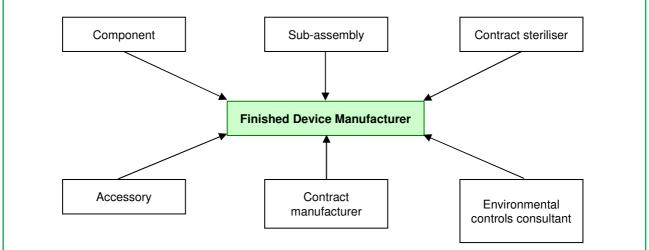
As a result, as illustrated in Figure 1 overleaf, the finished medical device manufacturer serves as the 'gatekeeper' over all device-related parts, components, materials and services brought into or used by the finished device manufacturer.

Manufacturers must have a quality system in place

Degree of supplier control necessary to establish compliance varies depending upon the circumstances

Purchasing Control requirements are described as...





Procedures must be in place to ensure all Products and Services conform to specified requirements To serve in this 'gatekeeper' capacity, finished device manufacturers must establish and maintain procedures to ensure that all purchased or otherwise received Products and Services conform to specified requirements, including quality requirements⁴. These procedures must encompass five basic elements:

1. Supplier Evaluation

Each manufacturer shall...[e]valuate and select potential suppliers, contractors, and consultants on the basis of their ability to meet specified requirements, including quality requirements. The evaluation shall be documented⁵.

In practice, the type of evaluation used to qualify a new supplier should be defined in a written procedure, such as the company's Purchasing Controls procedure. The type of evaluation is typically determined by the risk, or criticality, of the Products or Services being provided. For example, the initial evaluation of a supplier of off-the-shelf hardware screws used to assemble a piece of capital equipment, the failure of which would not independently cause the device to malfunction, would likely not need to be as extensive as the assessment of a contractor that is used to assemble an orthopaedic implant. The key to complying with this provision is that the evaluation must include the supplier's ability to meet the finished device manufacturer's requirements, *including* quality requirements. Thus, as noted above, even if the supplier does not have an independent obligation to comply with the QSR, the finished device manufacturer may determine that the supplier needs to meet some or all provisions of the QSR in order for the finished device manufacturer to ensure that the Products or Services are appropriate for the finished device manufacturer's use. The defined quality requirements, as well as the objective evidence that the supplier meets those requirements, should be documented in the firm's Purchasing Control files. One pitfall that is often seen in Purchasing Control files is that the finished device manufacturer will conduct

An evaluation must include the supplier's ability to meet finished device manufacturer's requirements, including quality requirements an audit of a supplier as part of supplier qualification without documenting the criteria for a successful audit. Merely conducting the audit without having acceptance criteria for that activity does not demonstrate that the supplier is capable of meeting the finished device manufacturer's quality requirements.

2. Determination of the Level of Control to Exercise Over Each Supplier

Each manufacturer shall...[d]efine the type and extent of control to be exercised over the product, services, suppliers, contractors, and consultants, based on the evaluation results⁶.

As with vendor qualification, the level or extent of control to be exercised over a supplier should be defined in a procedure and determined by supplier type, risk and criticality of the component, function or service being provided. Control of suppliers can range from periodic audits to 100% inspection of all incoming goods or materials. Other mechanisms include, but are not limited to:

- requirements for the supplier to implement corrective actions to address deficiencies (known as Supplier Corrective Action Requests, SCARs);
- ongoing monitoring and trending of supplier quality metrics;
- a requirement that the supplier comply with certain or all elements of the QSR. [It should be noted that certain suppliers, such as contract manufacturers who handle finished medical devices, may have an independent obligation to comply with applicable provisions of the QSR.]

3. Recordkeeping

Each manufacturer shall...[e]stablish and maintain records of acceptable suppliers, contractors, and consultants⁷.

A file should be maintained for each approved supplier that includes:

- the qualification and re-qualification documentation (e.g. completed questionnaire, audit record);
- the requirements, including quality requirements for the supplier to meet (e.g. drawings and specifications);
- evidence of compliance with those requirements (e.g. results of incoming inspection);
- correspondence regarding SCARs; and
- performance history.

The company must have a process to ensure that only approved suppliers are utilised. Many companies meet this requirement by maintaining an Approved Vendor List to identify those vendors from which to utilise or purchase goods. Note that a supplier may be approved for certain Products and Services but not for others. Just because a supplier is on an Approved Vendor List does not mean that the finished device manufacturer can order *any* Products or Services from the supplier. *Examples of controls that may be applied...*

Typical contents of a file for each approved supplier...

Manufacturers must provide sufficient information so that suppliers know what specifications must be met

4. Maintaining and Disseminating Purchasing Data

In addition to evaluating and approving suppliers, finished device manufacturers must provide sufficient information to their suppliers so that the suppliers know what specifications and requirements they need to meet. The regulation states that:

[e]ach manufacturer shall establish and maintain data that clearly describe or reference the specified requirements, including quality requirements, for purchased or otherwise received product and services. Purchasing documents shall include, where possible, an agreement that the suppliers, contractors, and consultants agree to notify the manufacturer of changes in the product or service so that manufacturers may determine whether the changes may affect the quality of a finished device⁸.

Accordingly, as part of any contract with a new supplier, a finished device manufacturer should provide the requisite information for that supplier to use. Examples of such materials include, but are not limited to:

- drawings;
- specifications sheets;
- catalogue numbers; and/or
- manufacturing procedures.

Systems should be in place to manage and control purchasing data

Suppliers should be contractually obliged to report any changes made to the product or its manufacture Systems should be in place for either providing purchasing data to the supplier with each order or for sending revised purchasing data when it is revised, and retrieving obsolete documentation. It is also advisable for the supplier to indicate on the purchase order which revisions of documents were used to produce the supplied product.

In addition, because the finished device manufacturer is ultimately responsible for the released medical device, contracts with third-party suppliers or contract manufacturers should require such parties to provide notice to the finished device manufacturer of any changes made to the supplied product or processes used to make the supplied product. Upon receipt of such information from a third-party supplier, it is the responsibility of the finished device manufacturer to assess whether such changes affect the quality of the finished device. If determined to impact the quality, safety or effectiveness, the finished device manufacturer should utilise its change control procedures and determine whether the change requires a submission (e.g. a new pre-market notification or premarket approval application supplement) to the FDA. If the finished device manufacturer cannot secure such agreements, it should explain why in its purchasing controls files; the finished device manufacturer may very well need to consider whether an alternative supply arrangement is feasible and, as a minimum, should increase its monitoring and acceptance activities for this supplier.

5. Incoming Acceptance Activities

As noted above, it is a QSR requirement to identify the level of control that will be exercised over a third-party manufacturer or

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issuance of an import detention or alert;

mandatory recall;

criminal fines.

• civil penalties; and/or

company. Should the violations involve a public health risk, or if the company fails to adequately address the FDA's inspectional observations, the Agency may take any number of enforcement actions, including: product seizure;

Enforcement of the Purchasing Control **Requirements** The FDA has the authority to enforce its regulations through, among other things, on-site inspections of medical device manufacturing facilities¹¹. In general, should deviations from regulations be observed, such as failures to comply with 21 CFR §820.50, the FDA has an

arsenal of enforcement options. Typically, a company will initially receive a Form-483 List of Inspectional Observations if the investigator finds what appear to be non-conformances with the FDA's regulations. The FDA may also issue a Warning Letter to the

product, many finished device manufacturers require suppliers to provide Certificates of Conformity or Certificates of Analysis with the supplied product. Companies are cautioned, however, not to blindly rely on such documentation. Periodic audits, inspection or testing is recommended to verify that such certificates accurately state what the supplied product purports to be.

- activities; and • where appropriate, the equipment used.
- require that such records include:
- [i]ncoming product shall be inspected, tested, or otherwise verified as conforming to specified requirements. Acceptance or rejection shall be documented⁹.

With respect to the documentation of these activities, the regulations

supplier. One key way to exercise this control, and to monitor a supplier's performance, is to conduct incoming inspection and/or testing of the supplier's product. In this regard, the QSR requires manufacturers to establish and maintain procedures for acceptance

of incoming products. Specifically, an:

- the acceptance activities performed;
- the dates acceptance activities are performed;

- the results; • the signature of the individual(s) conducting the acceptance
- These records should be part of the Device History Record¹⁰. In Finished device addition to conducting its own inspection and testing of an incoming manufacturers should not rely blindly on **Certificates of** Conformity/Analysis provided by a supplier

Possible enforcement actions by the FDA include...

Incoming inspection/ testing records should include...

QSIT is a top-down approach to inspecting and focuses on quality sub-systems When conducting an on-site inspection of a company's compliance with the QSR, the FDA generally follows its own internal inspection method, known as the Quality System Inspection Technique (QSIT). The QSIT, which has been in effect since 1999, focuses on inspections of quality sub-systems and is based on a 'top-down' approach to inspecting. It focuses on four systems (or fewer for certain types of inspections):

- Management Controls;
- Corrective and Preventive Actions (CAPA) (with satellite areas of Medical Device Reporting, Corrections and Removals, and Medical Device Tracking);
- Design Controls; and
- Production and Process Controls (with links to Sterilisation Process Controls)¹².

QSIT and Purchasing Controls

Since the QSR became effective in June 1997, the FDA has had the authority to inspect a manufacturer's compliance with the Purchasing Control provisions of the QSR. Although Purchasing Control is not its own sub-system under QSIT, it is addressed as part of the Production and Process Control evaluation. Specifically, the QSIT Manual states, with respect to the evaluation of a company's Production and Process Control sub-system, that 'verification must include a review of the Purchasing Controls and receiving acceptance activities regarding at least one component or raw material (preferably determined essential for the proper functioning of the device)¹². In addition, regarding the review of sterilisation processes, the QSIT Manual states that inspections should 'also include a review of the firm's Purchasing Controls and receiving acceptance activities regarding at least one component, material or service. Examples include: the sterilant, sterilization indicators, and services provided by contract sterilizers or contract laboratories'12.

Although a review of certain Purchasing Control information is referenced in the QSIT Manual, some FDA officials have questioned whether Purchasing Controls should play a larger role in QSIT inspections¹³. Although QSIT has not been revised since it was released in 1999, the Agency has implemented one policy change to increase the level of scrutiny of a company's Purchasing Control procedures during QSIT inspections.

Compliance Programme Policy Change

CPG on medical device manufacturer inspections was revised on 15 June 2006 On 15 June 2006, the FDA released a revised version of its medical device manufacturer inspections Compliance Policy Guide (CPG), Policy 7382.845. That CPG provides guidance to FDA field and Center staff for the inspection and administrative/enforcement activities described in the QSR, the Medical Device Reporting regulation (21 CFR Part 803), the Medical Device Tracking regulation (21 CFR Part 821), the Corrections and Removals regulation (21 CFR Part 806), and the Registration and Listing regulation (21 CFR Part 807).

Under QSIT, Purchasing Control is addressed as part of the Production and Process Control evaluation In general, the compliance programme organises FDA inspection into various levels. Of those levels, typical QSIT inspections are identified as Level 2 inspections. As stated in the CPG, Level 2 inspections cover all four major sub-systems (Management Controls, Design Controls, CAPA, and Production and Process Controls) identified in the QSIT. The Level 2 inspection is considered to be a comprehensive review of the compliance status of the company. Although the Level 2 inspection is intended to adhere to the QSIT approach, the 2006 version of the CPG (which remains the most current version) provides an additional emphasis on Purchasing Controls. Specifically, the CPG now states:

'It is important to thoroughly cover Purchasing Controls, to include outsourced processes, as a QSIT linkage under P&PC [Production and Process Controls] whenever P&PC is covered. The Purchasing Control coverage must be documented in the EIR [Establishment Inspection Report] especially if the manufacturer contracts a sterilization process or contracts the manufacture of significant components, subassemblies, or processes'.

Accordingly, Purchasing Control has become a required element of every QSIT-based inspection that covers Production and Process Controls. Moreover, recent enforcement trends appear to reflect this change in policy.

Compliance with Purchasing Controls

The number of inspectional observations involving Purchasing Control and incoming acceptance activities is trending upwards. For example, in 2006, 19 Warning Letters issued to the device industry included Purchasing Control deficiencies. That number increased in 2007 to 25. In 2008, there were 35 Warning Letters citing Purchasing Control deficiencies. [*Note*: The numbers cited in this article are based on a search of publicly-available Warning Letters as posted in FDA's Warning Letter database at www.fda.gov. The data cited in this article reflect the results from a search of that database conducted on 19 February 2009. As the FDA posts Warning Letters on a rolling basis, the numbers cited in this article may not reflect the actual number of Warning Letters issued during the time periods defined.]

Specific inspectional observations involving Purchasing Controls range from failures to implement procedures to failures of procedures to include all of the required elements of 21 CFR §820.50. The following are representative examples of inspectional observations from recent Warning Letters:

'Your firm failed to establish and maintain purchasing control procedures to ensure that all purchased or otherwise received product and services conform to specified requirements as required by 21 CFR 820.50. For example: According to [redacted], there is no procedure or documentation of any assessment of your contract manufacturer [redacted].'

Purchasing Control has become a required element of every QSIT-based inspection of Production and Process Controls

Number of Warning Letters issued to the device industry that included Purchasing Control deficiencies is increasing 'Failure to establish and maintain procedures to ensure that all purchased or otherwise received product and services conform to specified requirements, as required by 21 CFR 820.50. For example, your firm has not (1) evaluated the suppliers for their ability to meet your firm's requirements; (b) defined the quality requirements that each supplier must meet; (c) defined the frequency of supplier evaluations; and (d) documented supplier evaluations.'

'Your firm failed to maintain purchasing data such as documents including, where possible, an agreement from the supplier to notify you of any changes in the product or service as required by 21 CFR 820.50 (b).'

Similar to the trend involving Purchasing Control inspectional observations, the number of deficiencies involving compliance with Incoming Inspection activities also appears to be increasing. For example, in 2006, there were 15 Warning Letters citing violations of 21 CFR §820.80(b), or otherwise referencing deficiencies with respect to Incoming Inspections. Although the number slightly decreased in 2007 (13 Warning Letters), the number increased to 20 Warning Letters in 2008. Examples of deficiencies related to Incoming Inspections include:

'Failure to establish and maintain procedures for acceptance or rejection of incoming product, including documentation of acceptance or rejection, as required by 21 CFR §820.80(b). Your manager stated that your firm received bulk and unlabeled [redacted], pre-printed boxes, and product inserts (product labeling) from its foreign contract manufacturer, and then sent these products to your domestic packager for the final packaging. Your firm has not (a) established written procedures for the inspection, testing, or verification of these incoming products to ensure that they meet your firm's specified requirements; and (b) documented acceptance or rejection of the incoming products.'

'Failure to establish procedures for acceptance and rejection of incoming product; and failure to perform acceptance activities, including inspections, tests, and other verification activities, for incoming products [21 CFR §820.80(b)]. Specifically, your firm has not established procedures for the acceptance activities related to receipt of the [redacted], which you have contract manufactured. Additionally, you do not perform any testing on these devices when they are received from the contract manufacturer. You do not have a written quality agreement nor do you receive a certificate of conformance from them.'

Accordingly, FDA's scrutiny of industry compliance with the requirements of 21 CFR §§820.50 and 820.80 appears to be on the rise. Moreover, based on recent statements made by FDA officials,

Number of deficiencies involving compliance with Incoming Inspection activities is also on the rise

Examples of deficiencies...

it is expected that this scrutiny will increase in 2009 and beyond. For example, Kim Trautman of the FDA stated the following in 2008, 'When I go out and talk to the people at conferences, I am telling them that [they] are going to see, and should be seeing, more emphasis in looking at [Purchasing Controls] because we have recalls and direct evidence of problems that are associated' with Purchasing Controls¹³.

Import Alerts

For companies that market products in the USA that are manufactured by suppliers outside of the USA, the FDA's enforcement authority is particularly acute. Section 801 of the FFD&C Act directs the FDA to refuse admission of any article that *appears* to be in violation of the Act¹⁴. Under this broad grant of authority, the FDA can bar the entry of a product into the USA based on the mere appearance of adulteration or misbranding. Moreover, the FDA does not need a court order to initiate such action – the action can be initiated by the FDA and US Customs and Border Protection Agents at the port of entry. Although detention of a product at the 'border' typically occurs on a shipment-by-shipment basis, the FDA also has the authority to prospectively bar entry of foreign-made products into the USA.

Under the FDA's broad grant of authority, the Agency can issue an Import Alert, also known as a 'detention without physical examination' to bar admission of a particular product. Import Alerts also can be product specific, or apply to every product that is manufactured at a particular foreign facility. In such cases, the 'appearance' of adulteration can be triggered by an FDA inspection of the subject facility in which several QSR deficiencies were observed. Once an Import Alert is issued, each US port of entry is provided with such notice and advised not to permit entry of the identified product or products. In many cases, an Import Alert will only be lifted after the company has implemented effective corrective action to address the deficiencies and after a successful reinspection of the subject facility by the FDA. As a result, it can take up to 12 months or longer to have an Import Alert lifted.

As with the number of Warning Letters with Purchasing Control and Incoming Inspection related observations, the number of Warning Letters that notify the recipient of an Import Alert has also increased. For example, in 2007, only one device-related Warning Letter included the issuance of an Import Alert. That number increased to seven in 2008. [*Note*: In addition to the previous disclaimer about the numbers cited in this article, it is possible the other Import Alerts were issued to device manufacturers that were not identified in a Warning Letter.]

As enforcement of Purchasing Controls and Incoming Inspection requirements appears to be on the rise, there also is a possibility that the FDA will change its approach to enforcement with respect to certain supplier relationships. A recently released international guidance document (*see* next section) includes an approach whereby Scrutiny of Purchasing Controls is expected to increase in 2009 and beyond

FDA can bar the entry of a product into the USA based on the mere appearance of adulteration/misbranding

It often takes 12 months or longer to have an Import Alert lifted Purchasing Control may need to be exercised over products supplied by divisions within the same company.

GHTF Guidance

On 11 December 2008, Study Group 3 of the Global Harmonization Task Force (GHTF) released a document entitled *Quality Management System – Medical Devices – Guidance on the Control of Products and Services Obtained from Suppliers*¹⁵. The GHTF Guidance is intended to assist medical device manufacturers in complying with the various Purchasing Control provisions of global quality system standards and regulations. [Examples include: Sections 4.1 and 7.4 of ISO 13485: 2003; Articles 5 and 37-39 of the Japanese Ministerial Ordinance on Standards for Manufacturing Control and Quality Control for Medical Devices and In Vitro Diagnostics (MHLW Ministerial Ordinance No 169, 2004); and the FDA 1996 Quality System Regulation 21 CFR Part 820, Sections 820.50 Purchasing controls, and 820.80 Receiving, in-process, and finished device acceptance, which require organisations to control products and services obtained from suppliers.]

The GHTF Guidance provides recommended best practices for establishing controls for products and services obtained from suppliers based on six key steps:

- planning;
- selection of potential supplier(s);
- supplier evaluation and acceptance;
- finalisation of controls;
- delivery, measurement and monitoring;
- feedback and communication, including corrective action and preventive action processes.

In addition to providing general recommendations to implement each of the six steps above, the GHTF Guidance also provides examples of the types of objective evidence to demonstrate compliance with each step.

Perhaps the most noteworthy issue involving the GHTF Guidance is the scope of applicability. For example, the Guidance states:

Purchasing Control may need to be exercised over products supplied by divisions within the same company 'For the purposes of this document, a product or service is one which is purchased or otherwise obtained by the manufacturer. In addition, a supplier is anyone that is independent from the manufacturer's quality management system. This includes a supplier that may be part of the manufacturer's organization but operates under a separate quality management system. For example, if the supplier is not a part of the manufacturer's internal audit scope, then the supplier is under a separate quality management system and is considered an internal supplier.

Corporations or companies that have corporate quality policies and procedures do not necessarily place all divisions or groups

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Recommended best practices are based on six key steps

GHTF Guidance on

control of products and

services obtained from

suppliers published in

December 2008

under the same quality management system. Therefore, one division or group can be an internal supplier to another division or group within the same corporation/company. Internal suppliers are to be controlled in a similar way as external suppliers are controlled'¹⁵.

Based on the foregoing, there are certain scenarios where a finished device manufacturer would need to qualify another division or subsidiary of its own company. Although the GHTF Guidance does not carry the force of law or regulation in the USA, the FDA guidance appears to be consistent with this approach. For example, FDA's QSR Manual states:

'If the component is manufactured in a separate plant owned by the finished device manufacturer, then the manufacturer has flexibility in handling the quality assurance activities related to the control of components. One satisfactory approach is to have the plant that builds the components operate in full GMP [Good Manufacturing Practice] compliance. Under this arrangement, the plant which does the final device assembly would still be responsible for ascertaining that the quality and integrity of incoming components have not been damaged during shipment. Alternately, the component manufacturing plant may not fully comply with Quality System regulation. Then the plant that does final assembly should handle the acceptance of these components with the same degree of control as if the components were purchased from an outside supplier'¹⁶.

FDA officials have indicated that the GHTF Guidance may influence how the Agency interprets the Purchasing Control provisions of the QSR during a QSIT inspection¹⁷.

Compliance With Purchasing Control Requirements

As it appears that compliance with the FDA's Purchasing Control requirements has become, and will continue to be, a greater enforcement priority for the FDA, it is very important for companies to shore up their Purchasing Control processes, particularly if a company's suppliers reside outside of the USA. Provided below is a checklist of issues to be on the look out for in your own procedures:

1. Explicitly establish initial qualification requirements. Many companies implement purchasing control procedures that categorise suppliers by the criticality, or risk, associated with the Product or Service being provided. Each category should be clearly described and a rationale provided to support the associated qualification requirements for each category. The greater the risk, or criticality, of the Product or Service being provided, the more robust the qualification process should be.

FDA's QSR Manual appears to be consistent with the GHTF approach

FDA has indicated that GHTF Guidance may influence QSIT inspections

A 10-point checklist of issues to consider for Purchasing Control processes is provided QSR does not require a finished device manufacturer to conduct an on-site audit of any of its suppliers

Level of control should be driven by quality factors not financial ones

Criteria that are necessary to maintain approved vendor status should be documented

- One common misconception is that all suppliers must be audited by the finished device manufacturer. The QSR does not mandate that the finished device manufacturer conduct an on-site audit of any of its suppliers. As a practical matter, most companies do conduct audits of suppliers of Products and Services that are deemed critical.
- The regulation is flexible in that it allows the finished device manufacturer to determine what the appropriate means are for evaluating and monitoring suppliers. However, if it later turns out that there are quality issues with a Product or Service from a supplier, the Agency could very well question the adequacy of the finished device manufacturer's purchasing controls.
- If an audit is conducted, the specific criteria that the vendor must meet should be identified and documented. It is not enough to qualify a vendor based on an audit if the specific criteria required for a successful audit are not identified.
- The company's procedure should allow for flexibility in determining the appropriate qualification methods for different suppliers. At the same time, the company should be prepared to explain why similarly situated suppliers were treated differently under the procedure or in practice.
- 2. Clearly define the level of control to exercise over each supplier. The level of control exercised over each supplier should be commensurate with the level of risk, or criticality, of the Product or Service being provided and the performance history of the supplier, if available. The level of control should be driven by quality factors, not the financial impact of a component on the finished device. As above, the procedure should provide some level of flexibility so that suppliers can be assessed on a case-by-case basis.
- 3. Include processes for disqualification and re-qualification of suppliers. The procedure should provide the criteria that are necessary to maintain approval status. For example, a numbering system could be used which requires vendors to maintain a certain quantitative score based on various quality metrics:
 - the procedure should include a process by which, if a supplier fails to meet requirements, including quality requirements, that supplier can be placed on a probationary status;
 - the procedure should include the process by which a vendor may be disqualified;
 - the process should also provide the process by which a supplier that is on probation can be re-qualified to approved status.

Whatever system is used, the criteria utilised should be clearly supported by an explanation as to why the system is appropriate for the company's processes and products. This rationale should be documented.

4. Balance Purchasing Controls with Receiving Acceptance.

The level of incoming inspection or controls placed on a supplier should be commensurate with the criticality, or risk, of the device. In some cases, these controls may need to be modified. For example, when a supplier is placed on probation, the procedure should describe how the company will balance its control over this supplier with receiving acceptance to ensure that products or services are acceptable for their intended use. Thus, an acceptable quality level based sampling plan may need to be replaced with a 100% inspection of all incoming goods during the probationary period. If the company does not change its behaviour when it places a supplier on probation, one could question whether there is any actual significance of probationary status

5. Tie in to the company's CAPA system. The quality of incoming goods should serve as an input to the finished device manufacturer's CAPA system. For example, if a product provided by a third party fails to meet requirements or specifications, the finished device manufacturer should evaluate the root cause of these deficiencies. Failure of a third-party supplied product could be an indication of design deficiencies, process deficiencies, or the need to modify procedures and work instructions related to the third-party supplier's activities.

In addition, such issues could be the result of deficiencies with the quality system of the third-party supplier. To resolve these types of issues, the finished device manufacturer should require that the third-party supplier implement corrective actions under a CAPA system (e.g. a SCAR) at the request of the finished device manufacturer.

- 6. Apply the company's Purchasing Control and Incoming Inspection policies to internal suppliers. In light of the recently released GHTF guidance document, a company should utilise its Purchasing Control and Incoming Inspection procedures to cover Products and Services that are supplied by divisions within the same company if those divisions operate under a different quality system. As explained in the GHTF document, one method to determine whether the intra-company division operates under a different quality system is to determine whether the division is subject to the receiving division's internal audit process.
- 7. Require that certain agreements include post-market issues. Contracts with suppliers should include provisions whereby the third party will assist with complaint investigations, CAPAs, or even recall-related evaluations. In such cases, the third party may have the data that are needed to determine the root cause of an event or trend.

Controls placed on a supplier may need to be modified

Quality of incoming goods should be an input to a finished device manufacturer's CAPA system

Contracts with suppliers should include provisions so the supplier will assist with certain post-market issues Approved Vendor List should identify suppliers on probation or those that have been disqualified previously

- 8. Maintain an Approved Vendor List. Systems should be in place to prevent purchasing from suppliers who are not on a company's Approved Vendor List. An Approved Vendor List should identify which Products and Services are covered by the scope of the vendor's qualification. Only Products and Services covered by the scope of the qualification should be obtained from the supplier. There also should be a system for identifying suppliers that are on probation and those that have been disqualified at any point in the past.
- **9.** Require that contracts include provisions to notify when process or product modifications are made. The Purchasing Control procedure should require all contracts, where feasible, to include provisions whereby the third party must notify the finished device manufacturer of any design, product or process changes involving the supplied product or component. The inclusion of such a requirement will allow the company to assess whether such changes impact the safety or effectiveness of the company's finished device. In some cases, changes may require clearance or approval from the FDA. Included within the scope of disclosure, the contract manufacturer should identify for the finished device manufacturer any subcontracting of covered activities to a second- or third-tier supplier.
- **10. Training of all personnel with Purchasing and Incoming Inspection responsibilities**. As part of the personnel training requirements required within the QSR, a company should conduct regular training of all personnel responsible for purchasing and receiving activities. Such training should be part of those people's training plans and documented evidence of such training should be maintained in personnel files. Moreover, such personnel should be required to review and acknowledge each change made to the company's Purchasing Control and related procedures, as necessary.

The authors hope that this article helps to explain why, in the hypothetical example at the beginning of this article, a US customer may become very focused on qualifying and monitoring their contract manufacturer and the steps that may need to be taken to control suppliers.

References

- Important Notice to Manufacturers and Initial Distributors of Medical Devices That May Contain Heparin or Are Heparin Coated, FDA, 8 April 2008 (www.fda.gov/cdrh/safety/heparinnotice.html).
- 2. 21 CFR Part 820.
- 3. *Federal Register*, 1996, **61**(195), 52624 (7 October 1996).
- 4. 21 CFR §820.50.

FR §820.50.

Staff should be required to review and acknowledge any change made to the company's procedures

- 5. 21 CFR §820.50(a)(1).
- 6. 21 CFR §820.50(a)(2).
- 7. 21 CFR §820.50(a)(3).
- 8. 21 CFR §820.50(b).
- 9. 21 CFR §820.80(b).
- 10. 21 CFR §820.80(e).
- 11. Title 21 of the United States Code (21 USC) §374.
- 12. *Guide to Inspections of Quality Systems*, FDA, August 1999 (www.fda.gov/ora/inspect_ref/igs/qsit/qsitguide.htm).
- 13. Schmitt, SM: Changes May Be In Store for FDA's Quality System Inspection Technique. The Silver Sheet, 15 March 2008.
- 14. 21 USC §381(a).
- 15. Quality Management System Medical Devices Guidance on the Control of Products and Services Obtained from Suppliers, SG3/N17/2008, GHTF, 11 December 2008.
- 16. *Medical Device Quality Systems Manual: A Small Entity Compliance Guide*, FDA, December 1996 (updated 14 April 1999) (www.fda.gov/cdrh/dsma/gmpman.html).
- 17. Schmitt, SM: *GHTF Document: Firms Should Control, Audit 'Sub-Tier' Vendors When Needed. The Silver Sheet*, 15 May 2008.

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