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| ***Template Instructions:* *Delete “Template Instructions” Section when using template.***   * Complete **ALL** sections of the template. * This form is to be used for L1, L2L, L2, and L3L projects. * The Medical assessment is only required for medical, gene therapy, or IVD products and accessories. * After completing the Scope Assessment, indicate required project actions, adding where needed. After completing all sections, sign as indicated in the approvals section. This form is not all encompassing for all country specific requirements, any other country specifications found can be provided within the project plan. “\*” where used indicates voluntary requirements. * Keep content in black. * Informational notes are in *<blue italics>* where content can be added or deleted**.** If content is added ensure it is black font without italics in the completed Regulatory Compliance Impact Assessment. * The Plan summarized in this template will be updated based on the requirements outlined in SOP0018571: CTT Business Unit Engineering Change Control Process (ENG016). * Do not include *<informational notes>* in the completed Regulatory Compliance Impact Assessment. Replace the *<informational notes>* with the required information as guided by the informational notes. * If a section is not applicable (N/A) the output document shall explain why the section is N/A. Do not simply delete sections without a rationale. * Please delete the template revision history the output document. The Appendixes may be kept if it is needed. * The output document of this Regulatory Compliance Impact Assessment shall be uploaded into Arena under the design change that is being reviewed (i.e., “Files” tab).   **Important:**   * Any documents (i.e., engineering assessments, other regulatory assessments) that are to support this document shall be appended to the word file or PDF prior to the document receiving signatures. Documents shall not be embedded within the word file. |

**Template Revision History:**

|  |  |  |  |
| --- | --- | --- | --- |
| *Rev.* | *Effective Date* | *Section* | *Description* |
| A | 04-08-2012 | All | Initial Release. |
| B | 06-30-2021 | All | Added MDD requirements; Updated the document to reference revision B. |
| C | 1-19-2024 | All | Rewrite of entire document to be focused on the “impact” of the design change to the product’s compliance. |

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| --- | --- | --- | --- | --- | --- |
| **REGULATORY COMPLIANCE IMPACT ASSESSMENT** | | | | | |
| **<<CHK>>EPD <<CHK>>ECR <<CHK>>GEPC**  *<Insert Other>* | **Number:** *<Insert # associated with change.>*  **Level:** *<Choose a Project Level.>* | | | **CAPA Associated:** *<Select one.>*  **CAPA ID:** *<Insert CAPA ID>* | |
| **Problem Statement / Change Scope** | | | | | |
| *<Identify the problem statement or the engineering design change scope that is to be assessed and why the change is being made.>* | | | | | |
| **Description of the Product** | | | | | |
| *<Insert a brief description of the product and accessories in scope of this change.>* | | | | | |
| **Affected Product Family / Model(s) and Accessories (Do not embed documents for PDF visibility)** | | | | | |
| **Models**: *<Identify the SKUs impacted by this design change.>*  **Accessories**: *<Identify any accessories impacted by this design change. If no accessories are impacted, state “N/A – No accessories are identified as being impacted”.>*  *Note: Complete SKUs/Models shall be provided, with descriptions (if needed). If the product has SKUs that fall under multiple “device types”, identify the device type for the SKUs (i.e., table provided that shows the SKUs and which device types they fall under). If the Accessories are used with both GP and non-GP models, this must be specified.* | | | | | |
| **GENERAL** | | | | | |
| **Impact to Manufacturer** | | | | | |
| **Design Owner**: *<Choose an item.>* **Other (if applicable):** *<Fill in if “Other” is chosen.>*  **Name of OEM (if applicable):** *<Name of OEM>*  **Manufacturing Site**: <<CHK>>AVL <<CHK>> MAR <<CHK>> LSB <<CHK>> OHA <<CHK>> SNG <<CHK>> Other <<CHK>>OEM <<CHK>> CM (External)  **Other (if applicable):** *<Fill in if “Other” is chosen.>* **Name of OEM (if applicable):** *<Name of OEM>*  **CM (External – if applicable):** *<Name of CM>*  **Design is Copy Exact**: *<Choose an item.>* | | | | | |
| **New models SKUs to be created in scope of this project:**  *<If there are no new SKUs to be created, place N/A in this field.>* | | | | | |
| **Device Type (*based on Intended Use*) and Known Markets** | | | | | |
| *Select the appropriate Device Type category based on the Intended Use for the product (reference the products User Manual). If the product family and/or accessory(s) span between multiple device types, all Device Types must be selected.* | | | | | |
| **Device Type** | **N. America** | **EMEA** | **LATAM** | | **APAC** |
| General Purpose (GP) | <<CHK>> | <<CHK>> | <<CHK>> | | <<CHK>> |
| Medical (MD) | <<CHK>> | <<CHK>> | <<CHK>> | | <<CHK>> |
| In Vitro Diagnostics (IVD) | <<CHK>> | <<CHK>> | <<CHK>> | | <<CHK>> |
| Gen Purpose + Cell Gene Therapy (GP + CGT) | <<CHK>> | <<CHK>> | <<CHK>> | | <<CHK>> |
| Accessories in Scope  (*GP / MD / IVD / GP + CGT*)  *<Highlight only impacted device type>* | <<CHK>> | <<CHK>> | <<CHK>> | | <<CHK>> |

# RISK MANAGEMENT FILE

| **RISK MANAGEMENT FILE IMPACT *(All products)*** | |
| --- | --- |
| <<CHK>> The change does not impact the Risk Management File  **Justification:** *<A justification as to why this section is not in scope must be provided. Reference to relevant documentation should be provided.>* | |
| **Scope Assessment** | *Mark where applicable*  <<CHK>> The product family does not have a Risk Management File or does not have a Risk Management File aligned to the latest revisions in the QMS.  <<CHK>> The change introduces new usage conditions, or risk of harm as defined in the Risk Management Procedure (*Patient, Samples, Operators, Environment, etc.*).  <<CHK>> The change affects the current risk probability or severity associated with existing hazards  <<CHK>> The change will mean that the device will have different end users or be used in a different manner  <<CHK>> The performance evaluation data for the original device is not sufficient to confirm conformity of the changed device with the required characteristics and performance  <<CHK>> The change involves the manufacturing process (i.e., technologies, product lines)  <<CHK>> The change impacts End of Line (EOL) testing procedures (e.g., TP902 – Test procedure for all Hi Pot and Hypatia Equipment Test Machines)  <<CHK>> The change requires a process validation  <<CHK>> The change affects agreements and/or arrangements (e.g., verification, validation, organizational structure, production site, outsourcing, subcontracting) for ensuring continued compliance with the requirements  <<CHK>> The change results from actions taken related to concerns arising from post-market surveillance including incidents/recalls/complaints (CAPA associated)  <<CHK>> The change impacts Quality Control procedures, incoming acceptance criteria, or involves a change in supplier  <<CHK>> (Medical) The change results from characteristics not previously considered in the clinical evaluation  <<CHK>> (Medical) The change is driven by the development of the state of the art (e.g., latest technology)  <<CHK>>Other: *<If “Other” is selected, provide more information here>* |
| **Project Actions** | **Next Steps:** *<Choose the project action item that would need to be completed based on the scope assessment.>*  **GEPC# (if applicable)**: *<Insert GEPC number if a new project is being created>*  **Other (if applicable)**: *<If “Other” is selected, provide more information here>* |
| **Notifications to:**  <<CHK>>CAPA owner notified |

# PERFORMANCE COMPLIANCE ASSESSMENT

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| --- | --- | --- | --- | --- | --- | --- |
| **PRODUCT SPECIFIC COMPLIANCE ASSESSMENT *(All products)*** | | | | | | |
| <<CHK>> The change does not impact the performance compliance of the product.  **Justification:** *<A justification as to why this section is not in scope must be provided. Reference to relevant documentation should be provided.>* | | | | | | |
| **Scope Assessment** | *Mark where applicable*  **\*Clean Room Impact Determination:**  <<CHK>>Changes affect degradable, moving or friction generating components (air filters, fans, hinges, etc.)  <<CHK>>Changes affect the airflow into, throughout, and out of the unit (airflow vent, rearranging components, deck size, etc.)  <<CHK>>Product currently has outdated testing or missing testing to the latest requirements. Requested to add in scope of the current project.  **\*Energy Star Impact Determination (Refrigerators/Freezers/ULT only):**  <<CHK>>Changes affect critical components in compliance files (Electrical, refrigeration, labels)  <<CHK>>Changes affect the product performance, peak variation, temperature stability, door open recovery times  <<CHK>>Changes will be made to the product power specifications, refrigeration system, or electrical systems  <<CHK>>Changes to the internal cabinet size, construction, or configuration (inner doors, shelving, port holes)  <<CHK>>Change to defrosts, setpoint ranges, or code versions  <<CHK>>Changes to the software affecting behavior or timing of behaviors  <<CHK>>Product currently has outdated testing or missing testing to the latest requirements. Requested to add in scope of the current project.  **ErP Impact Determination (Chillers: Low Temperature /** **Medium Temperature / Height Temperature)**  <<CHK>> Changes affect the cooling capacity to cool down and maintain the temperature of the liquid  <<CHK>> Changes affect the functionality of the medium (refrigerant, water, etc.) to chill the system continuously  <<CHK>> Changes may affect the power input specifications  <<CHK>>Product currently has outdated testing or missing testing to the latest requirements. Requested to add in scope of the current project. | | | | | |
| **\*NSF456 Vaccine Impact Determination (Ref/Frz only):**  <<CHK>>Changes affect critical components in compliance files  <<CHK>>Product currently has outdated testing or missing testing to the latest requirements. Requested to add in scope of the current project. | | | | | |
| **NSF49 BSC Impact Determination (BSC only):**  <<CHK>>Changes affect critical components in compliance files  <<CHK>> Changes to the materials of construction or coatings (paint)  <<CHK>> Changes impact air flow (blowers, power supp, filters, paper catch areas, filter screen)  <<CHK>> Changes to the software  <<CHK>> Changes impacting stability (change weight distribution or change to stands)  <<CHK>> Changes impact cleanability (Sealing of openings that could harbor contamination, fasteners - Philip screws not allowed)  <<CHK>>Changes impact the cabinet pressure decay test (seals, cabinet materials)  <<CHK>>Changes impact labels or markings (add, remove, location change)  <<CHK>>Product currently has outdated testing or missing testing to the latest requirements. Requested to add in scope of the current project. | | | | | |
| **Project Actions** | **Impacted or Created** | **Agency Test Reports** | **N. America** | **LATAM** | **EMEA** | **APAC** |
| <<CHK>>ENERGY STAR\*  <<CHK>>NSF49 BSC\*  <<CHK>>NSF456 Vaccine\* | <<CHK>>Clean Room Particulate 14644-14\* | <<CHK>>Clean Room Particulate 14644-14\*  <<CHK>>ErP Directive *(Chillers only)* | <<CHK>>Clean Room Particulate 14644-14\*  <<CHK>>South Korean Act on Environmental testing and Inspection |
| <<CHK>>Other (if applicable): *<Select “Other” if the report is not listed above. Provide more information here.>*  Country: *<Specify the Country where this requirement is present>* | | | |
| **Marks & Labels** | <<CHK>>ENERGY STAR\* <<CHK>>CE (Self-Declared) <<CHK>>Other (if applicable): *<If “Other” is selected, provide more information here.>* | | | |
| **Documents** | <<CHK>>Marketing claims <<CHK>>CE DoC (Self-Declared) <<CHK>>Other (if applicable): *<If “Other” is selected, provide more information here.>* | | | |
| **Next Steps:**  **Testing Required:** *<Choose an item.>*  Other (if applicable): *<If “Other” is selected, provide more information here.>*  **Impacted Documents:**  <<CHK>>Agency Report Revision <<CHK>>Revise Engineering Drawings/Documents <<CHK>>Revise Regulatory Documents (Cloud Drive)  <<CHK>>Marketing claims are validated  Marketing claims have not been validation  Change impacts product, scope is defined as requiring a new project.  **GEPC#** *<Insert GEPC number if new project is being created>*  <<CHK>>Other (if applicable): *<If “Other” is selected, provide more information here.>* | | | | | |
| **Notifications to:**  <<CHK>>CB of changes (ENERGY STAR, required if not testing) <<CHK>>Energy Star Team Leads (ENERGY STAR)  <<CHK>>RA at Implementation Manufacturing Location <<CHK>>South Korean RA Team for in-country Testing  <<CHK>>Authorities of Product Changes where registered <<CHK>>Other (if applicable): *<If “Other” is selected, provide more information here.>* | | | | | |

# DESIGN SAFETY, EMC, & WIRELESS COMPLIANCE ASSESSMENT

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **DESIGN SAFETY, EMC, & WIRELESS COMPLIANCE ASSESSMENT *(All products)*** | | | | | | |
| <<CHK>> The change does not impact the design safety, EMC, and/or wireless compliance. Like for like components (i.e., PCBA components) should still be evaluated to ensure the safety report has not been impacted.  **Justification:** *<A justification as to why this section is not in scope must be provided. Reference to relevant documentation should be provided.>* | | | | | | |
| **Scope Assessment** | *Mark where applicable*  <<CHK>>Does the change affect specs, listings, warnings, or text on critical components in compliance files?  <<CHK>>Are the specs/ratings of the end product going to be changed? (power = re-evaluate markets)  <<CHK>>Are the specs/ratings of the product’s environment going to be changed? (Env. conditions, spacings, etc.)  <<CHK>>Are the product features / use being impacted?  <<CHK>>Are materials going to be changed (Keeping the same part number or not)?  <<CHK>>Are labels, IFU, or customer facing information going to be changed?  <<CHK>>Will the manufacturing location or applicant of the file need to change?  <<CHK>> (Supplier change) Does the change impact split inspection locations and files? (*Common for PCBA or enclosed subassemblies*)  <<CHK>>Product currently has outdated testing or missing testing to the latest accepted requirements. Requested to add in scope of the current project.  <<CHK>>Other (if applicable): *<If “Other” is selected, provide more information here.>* | | | | | |
| **Project Actions** | **Impacted or Created** | **Agency Test Reports** | **Safety Reports Impacted: EMC Reports Impacted:**  <<CHK>>NRTL Listing, Report # *<Insert Report Number>* <<CHK>>EMC (EN report), Report # *<Insert Report Number>*  <<CHK>>CB Safety, Report # *<Insert Report Number>* <<CHK>>FCC, Report # *<Insert Report Number>*  <<CHK>>Informative Safety, Report # *<Insert Report Number>* <<CHK>>ICES, Report # *<Insert Report Number>*  <<CHK>>Wireless, Report # *<Insert Report Number>*  <<CHK>>Other: *<If “Other” is selected, provide more information here.>*, Report # *<Insert Report Number>* | | | |
| **Marks & Labels**  Note: These markings may not be all inclusive. If another marking is used, this shall be place in the “Other” category. | **N. America** | **LATAM** | **EMEA** | **APAC** |
| <<CHK>>UL <<CHK>>CSA  <<CHK>>ETL <<CHK>>TUV  <<CHK>>FCC / ICES <<CHK>>NSF  NOM | <<CHK>>IRAM-S  <<CHK>>INMETRO  <<CHK>>ANATEL  <<CHK>> S Mark | <<CHK>>CE DoC (Self-Declared)  <<CHK>>CE DoC (EU NB)  <<CHK>>UKCA <<CHK>>LNE  <<CHK>>GS <<CHK>>WEEE | <<CHK>>KC Mark  <<CHK>> EAC |
| <<CHK>>Other: *<Select “Other” if the mark/label is not listed above. Provide more information here.>*  Country: *<Specify the Country where this requirement is present>* | | | |
| **Documents**  \*Indicates voluntary requirements | <<CHK>>FCC Declaration | *No documents currently identified within this region.* | <<CHK>>CE DoC (Self-Declared)  <<CHK>>CE DoC (EU NB)  <<CHK>>UKCA Declaration | *No documents currently identified within this region.* |
| <<CHK>>Other: *<Select “Other” if the document is not listed above. Provide more information here.>*  Country: *<Specify the Country where this requirement is present>* | | | |
| **Next Steps:**  **Testing Required:** *<Choose an item.>*  Other (if applicable): *<If “Other” is selected, provide more information here.>*  **Impacted Documents:**  <<CHK>>No Update Required (justification within plan required) <<CHK>>Paperwork update only  <<CHK>>Registration with Agency required (FCC, etc.) <<CHK>>Revise Engineering Drawings/Documents (i.e., labels)  <<CHK>>Revise Regulatory Documents (i.e., declarations) <<CHK>>Re-evaluate **market** requirements due to changes.  <<CHK>>Re-evaluate **product** requirements due to changes. <<CHK>>Re-evaluate **process** requirements due to changes.  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | |
|  | **Notifications to:**  <<CHK>>Regional Leads if registered (i.e., Saudi SASO, KC Mark, Australian RCM) <<CHK>>RA at Implementation Manufacturing Location  <<CHK>>Authorities of Product Changes where registered <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | |

# ENVIRONMENTAL ASSESSMENT

| **END PRODUCT ENVIRONMENTAL ASSESSMENT *(All products)*** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| <<CHK>> The change does not impact the end product environmental compliance. (i.e., change is associated with documentation updates)  **Justification:** *<A justification as to why this section is not in scope must be provided. Reference to relevant documentation should be provided.>* | | | | | | | |
| **Scope Assessment** | *Documents to reference for what is needed to meet environmental compliance:* | | | | | | |
| *CS Drawing# 260111S01* | | *TC Drawing # 015955* | | | *MAR Drawing# GT260111* | |
| *Mark where applicable*  <<CHK>>Change adds new or removes any components from the product (BOM update)  <<CHK>>The supplier of a part number is changing  <<CHK>>The manufacturing or internal part number is changing  <<CHK>>End product impacted currently has an outdated BOM in Greensoft or BOM is not uploaded into GreenSoft. Requested to add in scope of the current project.  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | | |
| **Internal Forms or Agency Test Reports** | <<CHK>>GreenSoft Item Submission <<CHK>>GreenSoft BOM Upload Form <<CHK>>GreenSoft Customer Collected Documents Form  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | |
| **Marks & Labels**  Note: These markings may not be all inclusive. If another marking is used, this shall be placed in the “Other” category. | **N. America** | | **LATAM** | **EMEA** | | **APAC** |
| <<CHK>>Prop65  <<CHK>>FIFRA Pesticide (UV Lamp) | | <<CHK>>WEEE | <<CHK>>WEEE <<CHK>>F-Gas  <<CHK>>PFAS | | <<CHK>>WEEE  <<CHK>>China RoHS (C-RoHS) |
| <<CHK>>Other: *<Select “Other” if the mark/label is not listed above. Provide more information here.>*  Country: *<Specify the Country where this requirement is present>* | | | | | |
| **Documents**  Note: If another document is needs to be created or update, this shall be placed in the “Other” category. | <<CHK>>Prop65 Declaration  <<CHK>>FIFRA Pesticide Product Reporting (UV Lamp) | | <<CHK>>Montreal Protocol Declaration | <<CHK>>REACH Declaration  <<CHK>>RoHS Declaration  <<CHK>>F-Gas Declaration  <<CHK>>CE Declaration (Self-Declared) | | <<CHK>>C-RoHS “Tic-Tac Table” Declaration |
| <<CHK>>Other: *<Select “Other” if the document is not listed above. Provide more information here, ex. Coneg, PFAS.>*  Country: *<Specify the Country where this requirement is present>* | | | | | |

| **Project Actions** | **Next Steps:**  **Testing Required:** *<Choose an item.>*  Other (if applicable): *<If “Other” is selected, provide more information here.>*  **Impacted Documents:**  <<CHK>>No Update Required <<CHK>>Upload GreenSoft Form(s) <<CHK>>Revise Engineering Drawings/Documents (labels)  <<CHK>>Revise Regulatory Documents (i.e., declarations)  <<CHK>>Change impacts product, scope is defined as requiring a new project.  **GEPC#** *<Insert GEPC number if new project is being created>*  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* |
| --- | --- |
| **Notifications to:**  <<CHK>>EPA Lead if registered (FIFRA) <<CHK>>GreenSoft User to load GreenSoft BOM changes (i.e., component or supplier change – site: [GS Submission](https://thermofisher.sharepoint.com/sites/global-regulatory-affairs/environmental/SitePages/Parts-List-Submission.aspx))  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* |

# MEDICAL ASSESSMENT

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MEDICAL ASSESSMENT *(Not applicable for General Purpose Products)*** | | | | | | | |
| **ART A SAFETY, COMPATIBILITY, EFFECTIVENESS** | | | | | | | |
| *(Mark if yes and complete Scope Assessment below)*  <<CHK>>Will the change affect the safety, compatibility, or effectiveness of the device?  <<CHK>>Will the technology, engineering design, or performance of the device or packaging change?  <<CHK>>Is the change introducing a new material, or alternate component, or is it a supplier change? | | | | | | | |
| **Scope**  **Assessment** | | <<CHK>>Does the change include or impact the product’s Intended use?  <<CHK>>Does the change introduce new risks of harm to humans, property, or the environment?  <<CHK>>Will the change affect the standards this product relies upon?  <<CHK>>Is there another registration classification that this product will align to? *<Provide more information here.>* | | | | | |
| **PART B LABEL IMPACTS** | | | | | | | |
| *(Mark if yes and complete Scope Assessment below)*  <<CHK>>Will the change affect product, packaging, electronic literature, or labelling? | | | | | | | |
| **Scope Assessment** | **Changes to Documents**  IFU/User Manual <<CHK>>Service Manual <<CHK>>Translation(s) <<CHK>>Technical Data Sheets  <<CHK>>ESI/Quick Start Guide <<CHK>>Marketing Material <<CHK>>Other: *<If “Other” is selected, provide more information here.>*  **Changes to Packaging/Shipping**  <<CHK>>Change in label material <<CHK>>Marking(s) <<CHK>>Indication of Use <<CHK>>e-IFU section  <<CHK>>Other: *<If “Other” is selected, provide more information here.>*  **Changes to Product/Product Label**  <<CHK>>Intended Use <<CHK>>Translation(s) <<CHK>>Change in specs/ratings <<CHK>>Change in the warnings/precautions  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | | |
|
| **PART C TECHNOLOGY, ENGINEERING, AND PERFORMANCE CHANGE** | | | | | | | |
| *(Mark if yes and complete Scope Assessment)*  <<CHK>> Will the technology, engineering design, performance of the device, or packaging change? | | | | | | | |
| **Scope Assessment** | <<CHK>>Change in control mechanism, operating principle or energy type?  <<CHK>>Does the change impact the Product Requirements?  <<CHK>>Does the change impact a component that is subjected to sterilization, cleaning, or disinfection?  <<CHK>>Does the change to the part require that sterilization validation, cleaning validation, or disinfection validation should be repeated?  <<CHK>>Does the change affect the performance or accuracy of the device?  <<CHK>>Does the change involve a component, software/firmware item or other part responsible for the product achieving its intended use?  <<CHK>>Change in packaging design?  <<CHK>>Change uses the same technology and classification as described in a previously cleared 510(k) or 510(k) exempt version?  <<CHK>>Does the change impact safety critical (i.e., 61010, EMC), critical to quality, critical to performance components? *(See ENG016, CTT Business Unit Engineering Change Control Process procedure for definitions.)*  <<CHK>>Does the change affect the intended use of the device?  <<CHK>>Risk-based assessment of the changed device identify any new risks or significantly modified existing risks?  <<CHK>>Is clinical data necessary to evaluate the safety or effectiveness for purposes of design validation? | | | | | | |
| **PART D MATERIAL / SUPPLIER CHANGE** | | | | | | | |
| *(Mark if yes and complete Scope Assessment below)*  <<CHK>>Is the change introducing a new material, alternate component, or is it a supplier change? | | | | | | | |
| **Scope Assessment** | <<CHK>>Is this a change in material type, material formulation, chemical composition, or the material’s processing?  <<CHK>>Will the changed material directly or indirectly contact body tissues or fluids *(Including operators and service)?*  <<CHK>>Does a risk assessment identify any new or increased biocompatibility concerns?  <<CHK>>Has the manufacturer used the same material in a similar legally marketed device?  <<CHK>>Could the change affect the device’s performance specifications?  <<CHK>>Does the supplier change impact split inspection locations and files? *(Common for PCBA or enclosed subassemblies*)  <<CHK>>Does the supplier change affect critical components in compliance files? | | | | | | |
| **Part E SOFTWARE/FIRMWARE CHANGES** | | | | | | | |
| *(Mark if yes and complete Scope Assessment below)*  <<CHK>>Is there a change to product software or firmware? | | | | | | | |
| **Scope Assessment** | <<CHK>>Does the SW Change impact the SW documentation? (as applicable SW QAPs/SOPs for AVL / MAR sites)  <<CHK>>Does the SW Change include a security patch related to a known vulnerability?  <<CHK>>Is the SW Change made solely to return the system into specification of the most recently cleared device?  <<CHK>>Does the SW change introduce a new risk or modify an existing risk?  <<CHK>>Does the change create or necessitate a new risk control measure or a modification of an existing risk control measure for a hazardous situation that could result in significant harm?  <<CHK>>Could the change impact functionality or performance specifications that are directly associated with the intended use or safety the device?  <<CHK>>Are there additional software factors that may affect the decision to file? (e.g., Infrastructure, Architecture, Core algorithm, Re-engineering and refactoring etc.)  *Refer to SW Substantial change Determination* | | | | | | |
| **Project Actions** | **Impacted or Created** | | **Approvals & Registrations** Note: These markings may not be all inclusive. If another marking is used, this shall be place in the “Other” category. | **N. America** | **LATAM** | **EMEA** | **APAC** |
| <<CHK>>USA: FDA 510(K) Exempt  <<CHK>>USA: FDA 510(K)  <<CHK>>Canada: MDSAP  <<CHK>>Mexico: COFEPRIS | <<CHK>>Argentina: ANMAT  <<CHK>>Brazil: ANVISA  <<CHK>>Brazil: INMETRO  <<CHK>>Columbia: INVIMA  <<CHK>>Costa Rica: MoH  <<CHK>>Ecuador: ARCSA  <<CHK>>El Salvador: DNM  <<CHK>>Guatemala: MSPAS  <<CHK>>Nicaragua: MINSA  <<CHK>>Panama: MINSA / MoH  <<CHK>>Peru: MINSA | <<CHK>>EU: CE (NB)  <<CHK>>UK: MHRA  <<CHK>>UK: UKCA (NB)  <<CHK>>UK: UKCA  <<CHK>>Iceland: IMA  <<CHK>>Israel: MoH  <<CHK>>Egypt: EDA  <<CHK>>Saudi Arabia: SFDA  <<CHK>>Turkey: TITCK  <<CHK>>Norway: NoMA  <<CHK>>Serbia: ALIMS  <<CHK>>Ukraine: SMDC  <<CHK>>Morocco: DMP | <<CHK>>China: NMPA  <<CHK>>Malaysia: MDA  <<CHK>>South Korea: MFDS  <<CHK>>Taiwan: TFDA  <<CHK>>India: CDSCO  <<CHK>>Singapore: HSA  <<CHK>>Japan: PMDA  <<CHK>>Australia: TGA  <<CHK>>Hong Kong: MCO  <<CHK>>Indonesia: MoH  <<CHK>>New Zealand: MEDSAFE |
| <<CHK>>Other: *<Select “Other” if the approval/registration is not listed above. Provide more information here.>*  Country: *<Specify the Country where this requirement is present>* | | | |
| **Agency Test Reports** | <<CHK>>IEC 60601 Report(s), Report # *<Insert Report Number>* <<CHK>>ILAC/IAAC Report, Report # *<Insert Report Number>*  <<CHK>> IEC 61010 Report(s), Report # *<Insert Report Number>* <<CHK>>CB Scheme Report, Report # *<Insert Report Number>*  <<CHK>>Other: *<Select “Other” if the report is not listed above. Provide more information here>*, Report # *<Insert Report Number>* | | | |
| **Marks & Labels** | <<CHK>>UDI <<CHK>>CE (EU NB) <<CHK>> Packaging/Shipping Labels <<CHK>> Product Label  <<CHK>> Other: *<If “Other” is selected, provide more information here.>* | | | |
| **Next Steps:**  **Testing Required:** *<Choose an item.>*  Other (if applicable): *<If “Other” is selected, provide more information here.>*  **Registration Impact:** *<Choose an item.>*  Other (if applicable): *<If “Other” is selected, provide more information here.>*  <<CHK>>Verify Intended Use consistency <<CHK>>Verify changes documented in TF / DHF <<CHK>>Verify changes are documented in DMR  <<CHK>>Submit to EU NB <<CHK>>Submit and Update TF / DHF <<CHK>>Verify 510k for change impact  <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | | |
| **Notifications to:**  <<CHK>>Regional RA Lead(s) <<CHK>>FDA Correspondent(s) <<CHK>>EU PRR(s) <<CHK>>Notify RA at Implementation Manufacturing Location  <<CHK>>Notify Authorities of Product Changes where registered <<CHK>>Other: *<If “Other” is selected, provide more information here.>* | | | | | | |

**Note**: If more than one product type is identified, please ensure all responsible RA individuals have signed this document. Copy only the signature blocks as needed.

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| **PROJECT PLAN ASSESSMENT (Completed during project phases)** | |
| *<For all selections made above within the different categories, a justification shall be provided. Insert detail and justifications of actions identified including tasks, samples needed, and responsible parties. If a Risk Management File is created or modified, a cross-functional team needs to be involved in the creation / modification of the file which should be documented within this Plan. Rationale for out of scope, no testing required, etc. can be provided in this section.>*  *<Example #1: The regulatory compliance assessment of the design change has identified that the product in scope of the design change needs to have the Risk Management File updated along due to the risk management file not being up to date to the latest QAP402 requirements. Due to the need for the change to be implemented to keep production from stopping, a GEPC request was submitted and ECR#12345 was given to uplift the risk management file.*  *The design change does impact the design safety of the product and environmental compliance due to the change being associated with implementing a new strain relief due to a supplier change (previous supplier has OBS their part number). The safety report (listed above) will need to be updated due to the report only allowing the use of a specific supplier and the environmental documents from the new supplier will need to be collected. The GreenSoft Customer Collected Documents form will be provided for the updated supplier. The product in scope is not medical and the strain relief change as no impact to the EMC report on file. No impact to markings, declarations, and performance, and marketing claims has been reviewed and no changes impacting these areas has been identified.>* | |
| **Regulatory Compliance EPD/ECR Assessment made by:** *<Name of Regulatory Specialist who conducted assessment>* | |
| *<Insert signature in this location>* | *<Click or tap to enter a date.>* |
| **Signature** | **Date (YYYY.MM.DD)** |
| **Engineering EPD/ECR Assessment made by:** *<Name of Engineer>* | |
| *<Insert signature in this location>* | *<Click or tap to enter a date.>* |
| **Signature** | **Date (YYYY.MM.DD)** |
| **PROJECT VERIFICATION ASSESSMENT (Completed before implementation of the design change)** | |
| (Medical Only) Did any Design verification and/or validation activities produce any unexpected issues of safety or effectiveness? *<Choose an item.>*  <<CHK>>All affected reports were verified for change accuracy (CCL, models covered, content, etc.) and all documentation is stored in the Technical File (TF) of the product.  <<CHK>>Not a Medical Device  **Justification:** *<During the verification phase, review the “Project Plan Assessment” and summarize the completed actions taken. Rationale for any changes to the original plan can be provided here. insert completed actions and rationale for any changes to original plan.>*  *<Example #1: The safety report identified above was updated to include the strain relief as interchangeable constraining the strain relief to the technical data listed in the critical components list. NoA has been received from UL and the report reviewed to ensure this statement is provided. GreenSoft Customer Collected Documents form was submitted to the GS Submission site for the updated supplier information for the strain relief. Environmental documents have been provided by the supplier and uploaded under the part number in Arena.>* | |
| **Regulatory Compliance EPD/ECR Assessment made by:** *<Name of Regulatory Specialist who conducted assessment>* | |
| *<Insert signature in this location>* | *<Click or tap to enter a date.>* |
| **Signature** | **Date (YYYY.MM.DD)** |
| **Engineering EPD/ECR Assessment made by:** *<Name of Engineer>* | |
| *<Insert signature in this location>* | *<Click or tap to enter a date.>* |
| **Signature** | **Date (YYYY.MM.DD)** |

# APPENDIX 1 - DEFINITIONS

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| **Control Mechanism** | The manner by which the actions of a device are directed. An example of a change in control mechanism would be the replacement of an electromechanical control with a microprocessor control. |
| **Compatibility** | Capable of harmonious coexistence; said of two or more medications that are suitable for simultaneous administration without nullification or aggravation of their effects. |
| **Critical to Quality** | Components or sub-assemblies that include critical quality parameters that may impact the Quality of the product. |
| **Critical to Safety** | Components or sub-assemblies that include Critical to safety parameters. Examples include components listed in Safety Reports (i.e., 61010-1, 60601-1), Compliance Reports (EMC, FCC, IC, etc.). Components responsible for a medical device maintaining essential performance are also considered critical to Safety (see QAP402). |
| **Design history file (DHF)** | DHF means a compilation of records which describes the *design* history of a finished device. It is required for medical Class II and Class III FDA devices and medical devices manufactured under ISO 13485. |
| **Device Master Record (DMR)** | A device master record (DMR) contains all of the information and specifications needed to *produce* a medical device from start to finish, including instructions for all manufacturing processes, drawings, documented specifications and labeling and packaging requirements. This is required by the FDA for medical devices. |
| **Effectiveness** | The extent to which an action or object achieves its intended purpose. |
| **Global Existing Product Change (GEPC)** | A singular closed loop approach for change management with standardized terminology for post-design transfer changes to products and processes. |
| **Harm** | Physical injury or damage to the health of people |
| **Hazard** | Potential source of harm |
| **Intended Use** | The term “intended use” means the general purpose of the device or its function, and encompasses the indications for use |
| **In Vitro Diagnostic Device (IVD)** | Those reagents, instruments, and systems intended for use in the diagnosis of disease or other conditions, including a determination of the state of health, in order to cure, mitigate, treat, or prevent disease or its sequelae. Such products are intended for use in the collection, preparation, and examination of specimens taken from the human body |
| **Labeling** | The term “labeling” means all labels and other written, printed, or graphic matter (1) upon any article or its containers or wrappers, or (2) accompanying such article. This can include, among other things, any user or maintenance manuals and, in some instances, promotional literature. |
| **Material Formulation** | The base formulation of a polymer, alloy, etc., plus any additives, colors, etc., used to establish a property or the stability of the material. This does not include processing aids, mold release agents, residual contaminants, or other manufacturing aids that are not intended to be a part of the material, but that could be present as impurities on the final device. An example of a change in material formulation would be a change from a series 300 stainless steel to a series 400 stainless steel. Another example of a change in material formulation would be the addition or subtraction of a chemical or compound to or from a polymer. |
| **Material Type** | The generic name of the material from which the device is manufactured. An example of a material type change would be the change from natural latex rubber to synthetic rubber. |
| **Operating Principle** | The mode of operation or mechanism of action through which a device fulfills (or achieves) its intended use. An example of a change in operating principle would be using a new algorithm to compress images in a picture archiving and communications system. For an IVD, an example would be a change from immunofluorescence to ELISA. |
| **Packaging** | Any wrapping, containers, etc., used to protect, to preserve the sterility of, or to group medical devices. |
| **Performance Specifications** | The performance characteristics of a device as listed in device labeling or in finished product release specifications. Some examples of performance specifications are measurement accuracy, output accuracy, energy output level, and stability criteria. |
| **Risk** | The combination of the probability of occurrence of harm and the severity of that harm. For the purposes of this document, may relate to either safety or effectiveness (e.g., risk of decreasing device effectiveness). |
| **Safety** | The state of being secure or safe from injury, harm, or loss; a judgment of the acceptability of risk–a measure of the probability of an adverse outcome and its severity associated with using a technology in a given situation |
| **Software** | The set of electronic instructions used to control the actions or output of a medical device, to provide input to or output from a medical device, or to provide the actions of a medical device. This definition includes software that is embedded within or permanently a component of a medical device, software that is an accessory to another medical device, or software that is intended to be used for one or more medical purposes that performs these purposes without being part of a hardware medical device. |
| **Technical File (TF)** | A technical file is a set of documents that describes a product and can prove that the product was designed in accordance with the requirements of a quality management system. This is mandatory for MDR products. |
| **State of the Art** | Developed stage of technical capability at a given time as regards products, processes, and services, based on the relevant consolidated findings of science, technology, and experience.  Note:   * state of the art embodies what is currently and generally accepted as good practice in technology and medicine * Does not necessarily imply the most technologically advanced solution |
| **Unique Device Identifier (UDI)** | Unique Device Identifier that is used on a medical device. Specific bar code on labels which are linked to a regulatory authority database (i.e., FDA). |
| **User Interface** | A device user interface includes all points of interaction between the product and the user, including elements such as displays, controls, packaging, product labels, and directions for use |
| **Warnings** | Warnings describe serious adverse reactions and potential safety hazards that can occur in the proper use or misuse of a device, along with consequent limitations in use and mitigating steps to take if they occur. |

# APPENDIX 2 - COMMON SOFTWARE CHANGE TYPES

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| **Infrastructure** | Changes are modifications made to the software support system. Examples include but are not limited to: switching compilers, changing programming languages (C to C++, C++ to Java), or changing software drivers or libraries. |
| **Architecture** | Changes are modifications to the overall structure of the software. Examples include but are not limited to: porting to a new OS, software changes to support a new hardware platform, and new middleware. |
| **Core algorithm** | Changes are modifications made to an algorithm that directly impact or contribute to the device’s intended use. Examples include: alarm algorithms on a monitor, a motor control algorithm for an infusion pump, and a detection module and measurement engine algorithm for an IVD. |
| **Clarification of Requirements – No Functionality Change** | Changes made to clarify software requirements after a product has received premarket clearance. This clarification may be revised phrasing of an existing requirement or creation of a new requirement altogether, without changing or adding functionality. |
| **Cosmetic Changes – No Change to Functionality** | Changes made to the appearance of the device that do not impact the clinical use of the device. For example, changing the company logo that is displayed on the background of every screen could involve modifying multiple software modules; while the number of modules impacted may be large, it is unlikely that the intended change could significantly impact the device’s safety and effectiveness or intended use |
| **Re-engineering** | Common software maintenance techniques. “Reengineering” is defined as the examination and alteration of software to reconstitute it in a new form, and includes the subsequent implementation of the new form. It is often undertaken to replace aging legacy software. |
| **Refactoring** | “Refactoring” is a disciplined technique for restructuring a software program’s internal structure without changing its clinical performance specification. Refactoring seeks to improve a program structure and its maintainability. In general, reengineering often results in broader and more complex changes, while refactoring is often narrower in scope and less complex. |