

Question Asked	Answerer	Proposed Answer
<p>We have had problems with out of state / out of country fabricated items having a difficult time meeting Lab Standards used in California. Is there a path to eventually accepting other Lab Standards equivalent to those in CA?</p>	<p>Alireza Asgari</p>	<p>HCAI accepts many accredited lab/agency as indicated in PIN 58 section 3,4 and 5. The websites in item 8 list many approved out-of-state and out-of-country labs.</p>
<p>In order to fully realize the advantages of off site fabrication then we will need a larger cohort of IOR's so that then can handle this strategy.</p>	<p>Alireza Asgari</p>	<p>PCS does not require continuous inspection, the demand on IOR/inspectors is not going to significantly affect the total workload, however HCAI continuously promote inspector through various programs.</p>
<p>Is there a path forward where by something like a bathroom, or a patient care room can become more like what we do now for Air Handlers. They become pre-approved items and the manufacturers have to get them certified and approved and then when they are used on a project that are treated like black boxes and no IOR inspection is required? I think that's what we're looking for. I.e. this is not for custom pre-fab solutions that are project specific, but if a vendor out there has a standard bathroom - that bathroom can be certified and purchased and no inspection at the manufacturers site is required ?</p>	<p>Alireza Asgari</p>	<p>Yes, HCAI's PCS program allows manufacturers to develop standardized prefabricated systems that can be used on multiple projects. However, PCS approval does not eliminate inspection requirements. In accordance with the approved TIO program, the first article/prototype unit must receive a full off-site inspection with the participation of the IOR, DPOR/EORs, and other required parties prior to production. After the prototype is accepted, production units may proceed under periodic off-site inspections as defined in the approved TIO. Components that are concealed off-site must be inspected prior to concealment. On-site activities are generally limited to verification of shipping condition, final anchorage, connections, and other field-installed work.</p>
<p>If a manufacturer goes through the PCS process does that item need to be inspected by the IOR as it is built for a project?</p>	<p>Alireza Asgari</p>	<p>Yes, Prefabricated products still need to conform to code requirements for inspection to provide quality assurance/control at the same level that would be inspected for field installed components. The requirements for inspection and a TIO developed for PCS approved products ensures alignment of expectations and prevents items from being concealed before they have been properly inspected.</p>
<p>Should we say that a workload/approach should also be provided to HCAI to understand the prefabrication approach? Do details provide clarification on what is prefabricated?</p>	<p>Alireza Asgari</p>	<p>DPOR and IORs should be involved in any prefabrication approach discussion as a team member to help provide guidance and align on an inspection approach to the proposed prefabrication. Details are needed for prefabrication at the same level of field installed components. HCAI PCS review and approval should provide the details needed for compliant fabrication and referenced in drawing sets</p>

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Curious if the process involves a typical shop drawing review between the DPOR and the off site constructor.	Alireza Asgari	DPORs should review all shop drawings typically. Regarding prefabrication, for best results, the DPOR should meet with any off site constructors of prefabricated components to understand the product and the details required for a complete install, not just the components that the off site constructor will be responsible for.
Please detail how the IOR can comply with requirement of "continuous inspection of work" when prefab work is done off site.	Alireza Asgari	Continuous/Periodic inspection requirements can be satisfied through an approved off-site TIO program. The initial prototype/first article unit is fully inspected off-site with participation of the IOR, DPOR/EORs, contractor, and manufacturer. After the prototype is approved, periodic in-plant inspections may be performed during production as defined in the approved TIO program. Work that will be concealed must be inspected prior to concealment at the fabrication facility. Upon arrival on-site, the IOR verifies shipping condition, installation, anchorage, and final connections rather than re-inspecting previously approved concealed work.
Can a prefab or modular product go thru a project specific design approval without the pre-approval (PCS)?	Alireza Asgari	Yes, prefabrication can be project specific and detailed for a specific drawing set but will be subject to the normal review process. Utilization of a PCS means that the product and applicable details have already been developed, reviewed and approved without the risk of additional review at a project specific level.
If a modular component is HCD certified (factory built housing and building components), does it need to also go through HCAI?	Alireza Asgari	Yes. HCD certification does not replace HCAI requirements for hospital projects. Any prefabricated or modular component used in HCAI-regulated facilities must comply with applicable HCAI requirements, including approved construction documents, TIO requirements, inspections, and special inspections.
do HCAI field need to visit the plant during fabrication?	Alireza Asgari	HCAI field staff may visit fabrication facilities as needed; however, the approved TIO program primarily relies on DPOR/EOR. With the DPOR direction, the IOR, approved agencies, special inspectors will perform the required off-site inspections and observations. The first prototype/first article inspection is intended to establish compliance before production begins.
if something is inspected in an off-site factory, is there any need to reinspect in the field. Thinking about systems within walls that are covered with gyp board in the factory.	Alireza Asgari	HCAI field staff may visit fabrication facilities as needed; however, the approved TIO program primarily relies on DPOR/EOR. With the DPOR direction, the IOR, approved agencies, special inspectors will perform the required off-site inspections and observations. The first prototype/first article inspection is intended to establish compliance before production begins.

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will OSHPD field staff travel to out of state factory, or rely solely on IOR for inspections out of state/country.	Alireza Asgari	HCAI field staff may visit out-of-state or international fabrication facilities as needed; however, compliance with the approved TIO program is primarily achieved through the IOR, approved agencies, special inspectors, and the DPOR/EOR team performing the required off-site inspections and reporting.
to achieve maximum benefit of prefab fully volumetric, some things like walls may be closed in. If everything is inspected in factory and covered up, unless there is apparent damage, no need to reinspect. Correct?	Alireza Asgari	Correct. If work was properly inspected off-site in accordance with the approved TIO program prior to concealment, it generally does not need to be reopened or reinspected in the field unless there is evidence of damage, modification, or noncompliance. Field inspections are focused on shipping condition, installation, anchorage, and final connections.
What is the estimated timeframe to receive a preapproval, and how will HCAI monitor the fabrication process in the shops? Can you clarify is a PCS is specific to a project only?	Alireza Asgari	A PCS is specific to a product not a project. Once a product has PCS approval, the details and requirements for the system just need to be copied in project specific drawing sets but do not require further review or risk of approval. Details do not required to be rereviewed. The timeframe for review depends on the complexity of the system being reviewed, HCAI Staff will review the submission and commit to a timeline once they have a chance to review the product.
Are there a sufficient amount inspectors available to keep projects on schedule with this process as it ramps up?	Alireza Asgari	HCAI recognizes that expanded use of prefabrication may increase demand for qualified inspectors and approved agencies. The approved TIO approach is intended to balance quality assurance with efficiency by using a fully inspected prototype/first article process followed by periodic inspections during production.
Is HCAI/OSHPD developing a preapproval program that will allow proprietary prefab information/details/engineering to be confidential? Currently all of this information is public for all to see.	Alireza Asgari	As a public funded agency the work of the agency is made public per "public records acts".
For walls, how much of a product it needs to be to be accepted? Can it vary on thickness and sizes and still be under the same "product"?	Alireza Asgari	Preapprovals will show acceptable thickness and sizes, if a product varies from the preapproval then it is not viewed as the same product.

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<p>except for required continuous inspections or material ID's, if you arent allowing us to cover items up offsite, what purpose does the offsite inspection serve? couldn't it all be inspected onsite then.</p>	Alireza Asgari	<p>The purpose of off-site inspection is to inspect and verify work before it becomes concealed and inaccessible. Under an approved TIO program, the first prototype/first article unit receives a full inspection off-site, after which production units may proceed under periodic inspections (some items require continuous inspection by code). Once inspected and approved off-site, concealed components generally do not require reopening for field inspection. On-site inspections are focused on verifying shipping condition, damage, anchorage, final connections, and any work performed in the field.</p>
<p>can the inspectors be from same company that built it or different?</p>	Alireza Asgari	<p>To avoid conflicts of interest inspections are required to be done by an independent party. The requirement for inspectors are defined in Chapter 7 of California Administrative Code.</p>
<p>Who inspects the pre-fab product when it arrives onsite?</p>	Alireza Asgari	<p>The EOR establishes the inspection program for both onsite and off-site. IOR is responsible for verifying the condition of the prefabricated product upon arrival on-site, including observing for shipping damage and verifying installation, anchorage, and final connections in accordance with the approved construction documents and TIO program.</p>
<p>Can the pre-fab work be considered work in progress, since it gets fully inspected in the final installation</p>	Alireza Asgari	<p>In some cases, prefabricated work may be treated as work in progress; however, any components that will become concealed must be inspected off-site prior to concealment in accordance with the approved TIO program. Final on-site inspections are generally limited to installation, anchorage, connections, and verification of shipping condition.</p>
<p>I'm sold on pre-fab. My interest is what is OSHPD/HCAI doing to make it more possible on acute care projects. Will you be covering this?</p>	Alireza Asgari	<p>HCAI will publish further guides and example in the future.</p>
<p>So if each room needs to be fully inspected if it were built onsite, you're saying it will still need to be inspected at the same level of detail at the offsite fabrication location ?</p>	Alireza Asgari	<p>Yes, the same level of inspections need to be provided as if you were building on-site. This includes the Design Professional of Record (DPOR) administration of the project inspections, testing, special inspections for items prior to covering etc.</p>
<p>can the manufacturing plant be located internationally?</p>	Alireza Asgari	<p>Construction for pre-fabricated items may be internationally provide all of the same requirements for construction, i.e. IORs, inspections, special inspections, TIO etc. are met.</p>

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How do you mitigate scope gaps with scope for the general contractor VS. the prefab manufacturer?	Cody Bartley	Clear Delineation of Scope usually shown at the Shop Drawing Detail level. Understand the prefabricated product, discuss conditions of satisfaction and the hand-offs required for a complete install
Is there a recommended scale or size threshold (i.e. room quantity) at which the benefits of prefabrication can be realized?	Cody Bartley	The size threshold/benefit analysis is different for each product and needs to be analysed at a project specific level early in design for benefits to be fully realized.
Does the pre-fab process utilize Union labor?	Cody Bartley	Union labor is not a factor in the preapproval process by HCAI. If a project has union labor requirements that needs to be discussed with the pre-fab contractor prior to any fabrication.
Can you please speak to challenges/lessons learned associated with installation of prefabricated components. Particularly associated with tolerances.	Cody Bartley	Lessons learned depend on the prefabricated component being discussed, we will try to address more lessons learned in following webinars but please reach out if you have a specific question to discuss now.
Given that the construction of these materials need to begin during the design phase, is there a risk if medical equipment changes? MEQ tends to be updated quite frequently and users tend to want the "latest and the greatest." Is there a risk with the MEQ purchases occurring so much later in the project?	Cody Bartley	Changes to MEQ equipment after permit approval need to be updated through the ACD process to update any changes to anchorage requirements shown in the approved drawing set.