

**Inspection of Lowest/Moderate Risk Category Work<sup>1</sup>**  
**Division of Responsibility (DOR) based on Qualifications and Risk (LANL internal)**

QIA	Qualified Inspection <u>Agency</u> or <u>Agent</u> (LANL). Entity having a formal qualification (and/or certification) for an inspection regime. This is most often the LBO Chief Inspector’s LBO Inspectors ( <i>in ES-FE</i> ) or third-party inspectors approved by them but may be (1) OSH-ISH for electrical/NEC, (2) Fire Protection Office, (3) LBO-approved QC inspectors, (4) CWIs and NDE inspectors approved by the respective program administrator per ESM Ch. 13 and in the Welding Program Database, or (5) others as noted in table (e.g., appointed based on position).
Sub-QIA	Someone who did not personally perform the work, selected by management. May be by craft supervision, engineering, or QC other than a QIA (e.g., <i>in IQPA</i> ) or programmatic or facility technicians.

**General**

1. All code work must receive some level of inspection. *Most non-code inspection may be by Sub-QIA.*
2. Inspection must ensure materials and methods meet code and design for all disciplines.
3. Independence: Inspections herein cannot be by Construction Subcontractors or their subtiers (i.e., must be LANL or LANL-subcontracted).<sup>2</sup>
4. Documentation: Inspections for acceptance must be documented.
  - a. Sub-QIA documentation may be on the engineering post-modification testing (PMT) form in [AP-341-801](#), Section IBC-IP daily or final report forms, an LBO-approved electronic system, or other format and must include name, Z-number, signature, date, and other features per [P330-8](#).<sup>3</sup>
  - b. QIA documentation must go into EDRMS (e.g., via LBO-approved electronic system that feeds it).
5. Nuclear safety (ML-1, 2, some 3): In addition to this document, when inspecting for acceptance, person signing must be “certified” (qualified) by LANL management per P330-8. Guidance: *Use of a QIA in all nuclear SSC inspections is recommended.*
6. Offsite inspection considered Source Verification is addressed by [IQPA-IQ-FSD-010.005](#), *Source Verification*.
7. For acronyms and terms not defined herein, refer to Ch. 16 IBC-GEN.
8. *Plans for inspection addressed by IBC-GEN, IBC-IP Att B (SSI), Att I (TIP), etc.*

**Table Usage (the “who/what”)**

1. Review all rows to determine inspector requirements (e.g., any welding invokes Welding row).
2. Sub-QIA only allowed as listed below. QIA inspection is default and therefore not limited by tasks listed in that column.
3. “When” and additional detail is defined in Section IBC-IP itself and its attachments.

<sup>1</sup> Risk categories per Ch. 16 IBC-GEN’s 3-tiered table. Highest Risk is excluded from this approach and requires QIA inspection.  
<sup>2</sup> QC-level self-inspection by Subcontractors prior to these inspections is allowable and described by LANL Spec Section 01 4000 *Quality Requirements* and the Test & Inspection Plan (TIP; ref. IBC-IP Att I).  
<sup>3</sup> Ref. [P330-8](#) paras on “Develop an Inspection Record Format (3.2.2.c)”, and “Step 4. Document the Inspection (3.2.4).”

<b>Authorized Inspection Entity Scopes (the "who/what")</b>		
<b>Discipline</b>	<b>Sub-QIA (limited to these tasks)</b>	<b>QIA (examples of when required)</b>
Final Insp	IBC 110.3.12 final inspection except...----->	...IBC 110.3.12 <u>final inspection</u> by QIA if any inspections in this column are involved
Fire Protection <sup>4</sup>	None	<ol style="list-style-type: none"> <li>1. Firestopping, firecoating (IBC 110.3.8, Ch.)</li> <li>2. Fire suppression and alarm installation</li> <li>3. Lath, gypsum board and gypsum panel product inspection <u>when fire-rated</u> (110.3.6)</li> </ol>
Civil	Fences, gates, sidewalks, parking lots, and non-structural equipment pads (un- or mesh-reinforced) except spec-required testing of same	<ol style="list-style-type: none"> <li>1. Structures, retaining walls, road paving</li> <li>2. Any required testing of items on the left</li> </ol>
Architectural	<ol style="list-style-type: none"> <li>1. Flooring</li> <li>2. Roof repair not triggering SSI</li> <li>3. Suspended ceilings under 144 ft<sup>2</sup></li> <li>4. Wall repair (non-structural aspects)</li> </ol>	<ol style="list-style-type: none"> <li>1. Any framing (is likely an Alt 2B or structural)</li> <li>2. Energy efficiency inspections (U &amp; R values; IBC 110.3.9)</li> <li>3. <i>Exterior insulation and finish system (EIFS)</i> or reroofing in SSI</li> <li>4. Suspended ceilings over 144 ft<sup>2</sup></li> <li>5. Weather-exposed balcony and walking surface waterproofing where balconies or other elevated walking surfaces have <i>weather-exposed surfaces</i>, and the structural framing is protected by an impervious moisture barrier (110.3.7).</li> </ol>
Structural	<ol style="list-style-type: none"> <li>1. Non-structural equipment pads (un- or mesh-reinforced)</li> <li>2. Seismically exempt anchorage (see ESM Ch. 5, Section II.1.8.C)</li> </ol>	<ol style="list-style-type: none"> <li>1. Footing and foundation inspection (110.3.1)</li> <li>2. Concrete slab and under-floor inspection (IBC 110.3.2)</li> <li>3. Frame inspection (IBC 110.3.4)</li> <li>4. <u>Anything</u> in SSI</li> </ol>
Mechanical	<ol style="list-style-type: none"> <li>1. Component maintenance/replacement that doesn't modify design and isn't an opportunity to meet current expectations (e.g., efficiency).</li> <li>2. Programmatic or process <u>equipment not</u> governed by IBC, UPC, UMC, or ASME B31 or B&amp;PVC.</li> </ol>	<ol style="list-style-type: none"> <li>1. Piping (UPC or B31) rough-in/testing/final<sup>5</sup></li> <li>2. Facility equipment subject to IBC, UMC, or ASME B&amp;PVC</li> <li>3. Equip energy efficiency inspections (IBC 110.3.9)</li> </ol>
Electrical	As allowed by Electrical Safety Committee direction (e.g., by FSD to P101-13); e.g., circuit D&D or moving device, or adding one 15–20A circuit.	All other work. Requires OSH-ISH engagement. <i>Inspection planning for smaller tasks addressed by guide document posted with ESM Ch. 7.</i>
I&C	Circuit deletion or moving device, or any programmatic or process work; <u>however, no HVAC or fire alarm work.</u>	All other work. Requires LBO Inspectors, CM-Startup, UI-DO, ES-IPD I&C team, or other QIA.
NDE	None	All NDE per ESM Ch 13 Vol 6, including visual examination (VT); NDE inspectors per Welder Database (weapon NDE by E-6 excluded)

<sup>4</sup> For fire protection, there's a DOR between FP Office and ES inspection posted with ESM Chs 2 and 16 IBC-IP.

<sup>5</sup> For piping, a chart on examiners & records is available from Chief Inspector.

<b>Authorized Inspection Entity Scopes (the "who/what")</b>		
<b>Discipline</b>	<b><u>Sub-QIA</u> (limited to these tasks)</b>	<b><u>QIA</u> (examples of when required)</b>
Welding	ESM Ch 13 GWS 1-01 excluded or exempted work (e.g., soft-soldering, temp welds, railing protecting stumbles or falls less than 30 inches; gutters and down spouts)	All else. CWIs per Inspector Database (see ESM Ch 13).