**In-line inspection check lists**

For latest version of these check lists refer to the POF Website ([**www.pipelineoperators.org**](http://www.pipelineoperators.org)).

Note:

Although quite extensive, the check lists included in this document are provided only as examples. They are not intended for adoption without review and customizing for all circumstances. Operators or other users choosing to adopt a similar list should base it on their own organization, structure responsibilities and permitting procedures.

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# ****ILI Check**** List 1 - Project initiation: Project approval

|  |  |
| --- | --- |
| **Key points to address** | **Comments** |
| Pipeline risk assessment completed |  |
| Objectives / reason for inspection documented |  |
| Critical features and sizes documented |  |
| Pipeline questionnaire completed |  |
| Data from operational cleaning and pigging runs collated and assessed. |  |
| Tool selection basis completed (may need preliminary input from suppliers) |  |
| Decision support package completed and approvals in place |  |
| Project team in place; roles and responsibilities agreed |  |
| Tentative planning defined |  |
| Pipeline ready for inspection. If not, agreed plan in place to prepare line. |  |
| Contractor(s) contacted |  |
| Work order issued |  |
| Operator’s world-wide ILI coordinator to be notified (if applicable) |  |
| Any other point(s) |  |

# ****ILI Check List** **2 - Stakeholder engagement****

|  |  |
| --- | --- |
| Key points to address | Comments |
| Confirmation of scope & expectations |  |
| Reminder of personnel competence/certification requirements |  |
| Role and responsibilities: review of project responsibility matrix |  |
| Safety & training requirements* Process safety overview
* Safety reviews
* Site inductions and training
* Control of work and permitting
 |  |
| Communications* Key personnel and points of contact
* Correspondence
* Stakeholders
 |  |
| Schedule * Tentative programme, time of year and climatic conditions
* Key milestones
* Tool availability / non-availability
* Optimum timing with respect to production profiles and required tool speed
 |  |
| Review pipeline questionnaire |  |
| Facilities / Services* Required by contractor
* Provided by operator
 |  |
| Transport logistics  |  |
| 3rd party support requirements |  |
| Site visit  |  |
| Pipeline preparation * Review programme
* Gauge plate/ profile tool acceptance criteria agreed
 |  |
| Previous pigging / inspection* Review of speed profile
* Review of cleaning records
* Review of launch/receipt procedures
 |  |
| Any other point(s) |  |

# ****ILI Check List** 3** - Project initiation: Risk assessment

|  |  |
| --- | --- |
| Key points to address | Comments |
| Review processes* HAZID / HAZOP
* Site assessments
* Tool box discussions
 |  |
| Organisation* Roles and responsibilities
* Decision process
* Control of work and permitting
* Organisational competency
* 3rd party interface management
 |  |
| Process safety* Operating conditions for pigging
* Pipeline contents / cleanliness
* Hazardous areas confirmed
* ATEX requirements
* Impact on upstream and downstream
* Condition of pig traps and facilities
* Temporary facilities
* Simultaneous operations
 |  |
| ILI tool selection * ILI tool suitability for expected anomaly types
* Need for use of a speed control device
 |  |
| Operating procedures* Documented procedures
* Communications
* Pig trap operation, isolation and purging
* Pig launch procedure
* Running pigs & tracking
* Pig receipt procedure
* Downloading data
 |  |
| Handling materials * Use of chemicals
* Handling and disposal of waste (NORM, Hg, benzenes)
* Cleaning pigs and equipment after use
 |  |
| Logistics * Transport
* Access to sites
* Handling pigs and equipment
 |  |
| Other * Schedule / inspection windows / delays
* Weather conditions
* Lessons learned
 |  |

# ****ILI Check List** 4** - Project initiation: Site visit

|  |  |
| --- | --- |
| Key points to address | Comments |
| Safety induction & site overview |  |
| Organisation responsibilities |  |
| Hazardous areas confirmed  |  |
| ATEX requirements confirmed * Gas group
* Temperature rating
 |  |
| Control of work |  |
| Transport arrangements |  |
| Access and pig lifting / handling  |  |
| Pig trap dimensions |  |
| Operating procedures |  |
| Review progress with pipeline preparation |  |
| Tool & equipment cleaning facilities and associated procedures  |  |
| Workshop facilities (base & worksites) |  |
| Any other points |  |

# ****ILI Check List** 5** - Operations: Preparation and cleaning

|  |  |
| --- | --- |
| Key points to address | Comments |
| Cleaning plan and procedures* Target level of cleaning agreed with contractor
* Cleaning procedure agreed, including type of pigs and sequence
* Key decision points established
* Roles and responsibilities agreed
* Operating procedures agreed and in place
* Communications in place and tested
* MOC procedure for cleaning process in place
 |  |
| Pig selection* ATEX certification reviewed and accepted
* Pigs inspected before use
* Gauge / profile tool acceptance established
 |  |
| Use of chemicals, gels or nitrogen* Temporary facilities in place
* Material Data Sheets (MDS) in place
* Water sources agreed
* Disposal process agreed
 |  |
| Pig Traps* Modifications in place
* Trap connections in place
* Temporary tanks and vessels in place
* Pig trap isolation, drain & vent valves confirmed to be leak tight
* Spare pig trap door seals available
 |  |
| Operating conditions * Maximum pig speed agreed
* Pressure differentials measured
* Max and min line pressure controlled
 |  |
| Pig tracking * Pressure and flow measurement
* Tracking crews
* Transmitters/magnets/isotopes on pigs
 |  |
| Contingency plans in place* Stuck or stalled tool
* Loss of communications
 |  |
| Product and debris handling procedures in place* Sampling, testing and disposal
* NORM, benzene or mercury handling
* Disposal of cleaning pigs
 |  |
| Pigging records: procedure in place |  |
| Review of cleaning progress with contractor |  |
| Gauge and caliper results reviewed with contractor. |  |

# ****ILI Check List** 6** – Operations - Mobilisation of ILI tool

|  |  |
| --- | --- |
| Key points to address | Comments |
| Cleaning programme running to plan  |  |
| Pipe bore confirmed by caliper or gauge pig and results reviewed with contractor |  |
| ILI contractor confirmed cleaning programme |  |
| Pre project documentation completed and agreed |  |
| Safety reviews completed |  |
| Training review (safety trainings) completed |  |
| Site transport, access, handling and workshops agreed |  |
| Operations procedures agreed |  |
| Pipeline operating conditions verified |  |
| Time window confirmed with operators |  |
| ILI mobilisation notification to contractor |  |
| Any other point(s) |  |

# ****ILI Check List** 7** - Operations: ILI tool run – Prelaunch

|  |  |
| --- | --- |
| Key points to address | Comments |
| ILI tool preparation |  |
| ATEX compliance certification verified |  |
| Final cleaning run confirmed as acceptable by both operator and contractor |  |
| Operating procedures confirmed |  |
| Communications confirmed  |  |
| Local site logistics and permits in place |  |
| Emergency response systems in place |  |
| Pipeline operating conditions confirmed  |  |
| Tool tracking in place |  |
| Profile tool run completed and received in an acceptable condition confirmed by both operator and contractor |  |
| Valve positions confirmed |  |
| Final ILI tool checks |  |
| ILI tool launched  |  |
| Any other point(s) |  |

# ILI Check List 8 – Operations - ILI tool run and receipt

|  |  |
| --- | --- |
| Key points to address | Comments |
| Communications maintained between operator and contractor  |  |
| Tool progress tracked  |  |
| Tool received and checked for damage |  |
| Tool cleaned and checked free of contamination |  |
| Data downloaded |  |
| Data transferred to contractor’s analysis department for quality check  |  |
| Data quality checked and run conditions confirmed as acceptable  |  |
| Completion report issued and accepted by operator  |  |
| Tool and ILI crew demobilise  |  |
| Any other point(s) |  |

#  ILI Check List 9 - Data analysis and reporting

|  |  |
| --- | --- |
| Key points to address | Comments |
| Reporting requirements confirmed  |  |
| Initial report issued on significant features |  |
| Preliminary report issued (if required) |  |
| Data quality parameters verified. Not covered areas identified. |  |
| Final report issued  |  |
| Presentation of findings (if required)  |  |
| Field verification |  |
| Post run analysis of field investigations  |  |
| Any other point(s) |  |

# ****ILI Check List**** **10** - Performance feedback

|  |  |
| --- | --- |
| Key points to address | Comments |
| Feedback form completed for successful run  |  |
| Performance reviewed with contractor  |  |
| Procedural improvements captured  |  |
| Preparation and ILI run documentation captured  |  |
| Lessons learnt prepared and shared  |  |
| First run success failures investigated  |  |
| Analysis of failed runs updated  |  |
| Follow up discussions with contractor  |  |