

NoPig[®] Inspection Guidelines

1. Safety

- Basis for any NoPig inspection are the NoPig Technical Specifications. They outline the pipeline parameters that are to be taken into consideration.
- There must be at least one customer technician on site, experienced in pipeline activities, for the assistance of N.P. Inspection Services GmbH personnel.
- If additional safety conditions are to be met, these are to be discussed prior to the inspection project.
- If any off-limits security areas on the Right Of Way (ROW) over the pipeline are present, the NoPig inspection personnel must be informed about them prior to the inspection. They must be marked on the pipeline route map.
- NoPig Inspection can not be done during a thunderstorm or a hard rain.
- NoPig Inspection System is not suitable for explosive areas.
- Road closures or traffic control must be arranged by the customer. Any official clearance or permits are to be filed by the customer.
- The NoPig connection cable should not, if possible, cross roads and should never cross railroads or big (over 20 m from coast to coast) water areas like rivers or lakes. Small water areas like creeks with the width up to 20 m can be crossed by the connection cable.

2. Planning and Coordination

- All information material regarding the pipeline should be made available to N.P. Inspection Services GmbH before the inspection project. This information should include but is not limited to:
 - Name of the pipeline;
 - Pipeline route map;
 - Cathodic Protection (CP) posts to connect the NoPig connection cable;
 - Position of pipeline installations (valves, isolators, T-pieces, etc.).
- After receiving the information material, a site visit is recommended. The clarity needed for a successful project can only be assured after viewing the site at first hand. Safety and electrical basics for the inspection will be addressed.
- The pipeline must be reachable by vehicle.

3. ROW preparation

- To avoid disturbances during inspection, large metal objects should be kept at a maximum distance from the pipeline. To achieve the best possible results, this distance should be 5 metres on either side of the pipeline. The NoPig System's sensitivity is reduced proportionate to proximity.
- It is necessary to place the sensor array on the ground directly above the pipeline during the inspection. It is therefore imperative to have this path, approximately 2 metres wide, as clear as possible from trees, bushes, high grass/weeds, etc. to avoid delays.

- The pipeline owner/operator must clarify all ROW issues with landowners, farmers and local officials before the inspection takes place.
- Waterways must be taken into consideration. The NoPig System can not inspect pipelines buried under water.

4. Pipeline preparation

- It is necessary to disconnect CP before connecting the NoPig System.
- If possible, all electrical contacts to other pipelines must be disconnected so that the pipeline to be inspected is “electrically isolated”. If the full isolation is impossible it is allowed to have the pipeline contacted with other lines only in one point. Any specific electrical situation on the pipeline must be discussed with NoPig specialists prior the inspection.
- The NoPig inspection current source is potential free. There may be the voltage up to 12 Volts and currents up to 14 A at any given time on the pipeline. N.P. Inspection Services GmbH does not take responsibility for any effects this might cause.
- The NoPig System is powered only by a portable generator. (Potential free)
- The contact points to feed in the inspection current into the pipeline should be no longer than 1000 metres apart. Longer distances cause loss in sensitivity. If CP connections are used, these connections must be able to transmit a current up to 14 A.