### Assessing the risks

Firstly, consider the age and design of the storage tanks and then look at the leak detection methods you currently use. You will need to decide whether these precautions are enough to detect leaks, or if you need to do more. Table 2 shows one way you could go through this process. The control measures column gives some example precautions that could be taken there may well be alternatives. Some measures are most appropriate to new sites or those being refurbished. For older sites the cost could be disproportionate to the risk. Remember that you must provide sufficient control measures to keep the risk.

### Table 2: Controlling the Risks from Storage

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Activity**  | **Risk**  | **Control Measure**  | **Findings/actions**  | **Target Date**  | **Suggested Review Date**  |
| Petrol stored in underground tank   | Leak through tank wall   | * Install a continuous inventory checking system.
* Install a suitable leak prevention or leak detection system and regularly maintain it.
* Install a tank liner. • Install cathodic protection. • Install a monitoring/retrieval well. • Remove the dipstick from the (internal) fill pipe of tanks with off-set fill arrangement.
* Instruct staff not to drop the dipstick in the fill pipe after removing to measure contents.
 |   |   |   |
| Petrol stored in above ground tank   | Leak through tank wall   | * Provide spill containment
* Install a monitoring or leak detection system. • Carry out regular visual inspections of the tank and its fittings for signs of corrosion.
* Regularly check for signs of leaks such as staining on outer surfaces or contaminated soil.
 |   |   |   |
| Impact damage, such as collision or vandalism   |   | * Locate or re-locate tank away from normal site traffic route.
* Provide road markings or other signs to direct traffic.
* Provide physical protection such as bollards or fencing.
 |   |   |   |
| Fire and explosion from an external source   |   | * Protect tank with an insulating material.
* Provide additional fire protection measures such as automatic fire detection equipment or suppression systems.
 |   |   |   |
| Repair to tank   | Ignition of vapour due to repair work   | * Use competent contractors.
* Agree safety method statement or permit-towork system.
* Cordon off and control ignition sources in area around tank as agreed with contractor.
 |   |   |   |
| Leak due to faulty repair   |   | * Ensure repairs are carried out by competent staff according to written procedures.
* Draw up standards for repair work.
* Carry out a test tank before bringing equipment back into use.
 |   |   |   |