

Development of IDIS (Integrated Drain Information System) for Reducing Radiation Exposure

Dong-ug Kim

Korea Hydro & Nuclear Power Co., Ltd.

Email: wooky017@khnp.co.kr

The radioactive waste which is generated from nuclear power plant is handled in order to reduce radiation pollution to workers and environment by using the pre-treatment system. If this radioactive waste from nuclear power plant is leaked by abnormal event, leaked radioactive waste has a bad effect on the plant and workers. The liquid radioactive waste pollutes environment and equipments through drain pipe.

If we cannot find the leaked and polluted area, the liquid waste will have worse effect on plant and workers. And we have to review many kinds of drawings to find the leaked and polluted area. But it takes a lot of time to review all drawings and the plant gets more polluted as time goes.

So we would try to systemize separated drain information to use when abnormal event like liquid waste being leaked occurs and to find what causes it. In order to systemize separated drain information, we researched pipe designs in our plant and compared between the plant and drawings. We also carried forward finding drain design basis of drain pipes and changing the design about nonconforming items. And we created a drain data base and does mapping operation to increase drawing visibility.

This integrated drain information system contains drawings and drain database will reduce radiation exposure of workers by finding drain pipes faster and by setting the limits when abnormal event occur like leaking liquid waste.