

Existing Regulations That Staff Could Use to Identify Subsurface Contamination

The following regulations provide the staff with the capability to become aware of subsurface contamination. These regulations, however, do not specifically pertain to subsurface contamination at the site, and need interpretation from the current focus on estimated exposure to apply to long-term environmental conditions.

10 CFR	Relevance to identification of subsurface contamination
Part 19	Specifies notices and inspections, but is focused primarily on events related to short-term worker exposures.
Part 20	Provides requirements for protection of the public and workers from excessive exposure to radiation. The emphasis is on preventing and mitigating events that could result in imminent exposures, not projected long-term exposures. Including exposures from existing licensed sites and focusing on long-term conditions require rulemaking, because § 20.1406 presently requires only that license applicants must design their facilities and prepare operating procedures to minimize contamination and radioactive waste. While Part 20 supports a vigorous enforcement program, its current focus is on events resulting in actual or potential immediate exposures.
Part 21	Provides requirements focused on component failures, rather than the dose effects of the failures. The "substantial safety hazard" specified in § 21.21 is generally interpreted to address events resulting in short-term worker exposure, rather than long-term environmental hazards, such as ground-water contamination.
Parts 30, 40, 70 and 72	Section 30.35 (and equivalent sections 40.36, 70.25, and 72.30) specifies that upon application, certain licensees must have a decommissioning funding plan based on current estimates of total decommissioning costs, and financial assurance to support it. Section 30.36 (and equivalent sections 40.42, 70.38, and 72.54) specifies that the decommissioning plan must be an accurate statement of the radiological condition of the site. Assessment of the radiological condition of the site, however, only occurs at the end of licensed operations. There are no requirements for licensees to report periodically the radiological condition of the site, especially any subsurface contamination, in conjunction with updating cost estimates for decommissioning funding and financial assurance.
Part 40	Section 40.32 specifies that for certain facilities or "... any other activity which the Commission determines will significantly affect the quality of the environment," the staff must evaluate environmental benefits and costs prior to issuance of the proposed license, "with any appropriate conditions to protect environmental values." Environmental reviews that include potential subsurface and ground-water contamination are currently not explicitly required.
Parts 40, 50 and 70	Section 50.36a(2) specifies that "Each licensee shall submit a report to the Commission annually that specifies the quantity of each of the principal radionuclides released to unrestricted areas in liquid and in gaseous effluents during the previous 12 months..." Sections 40.65(a)(1) and 70.59 have similar reporting requirements except on a semi-annual basis.