Overview of CHARACTERIZATION for Nucl. Decommissioning

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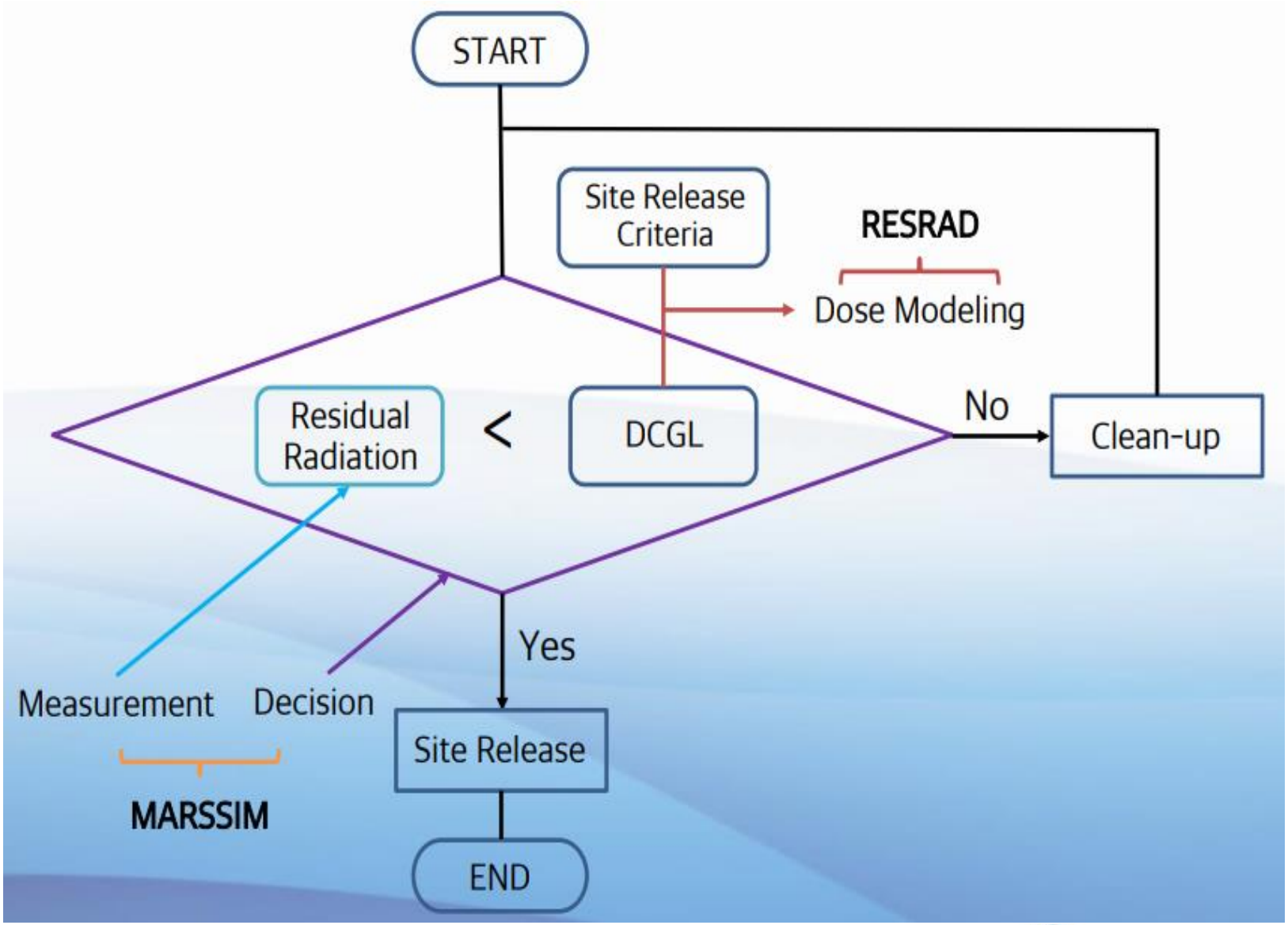
목 차



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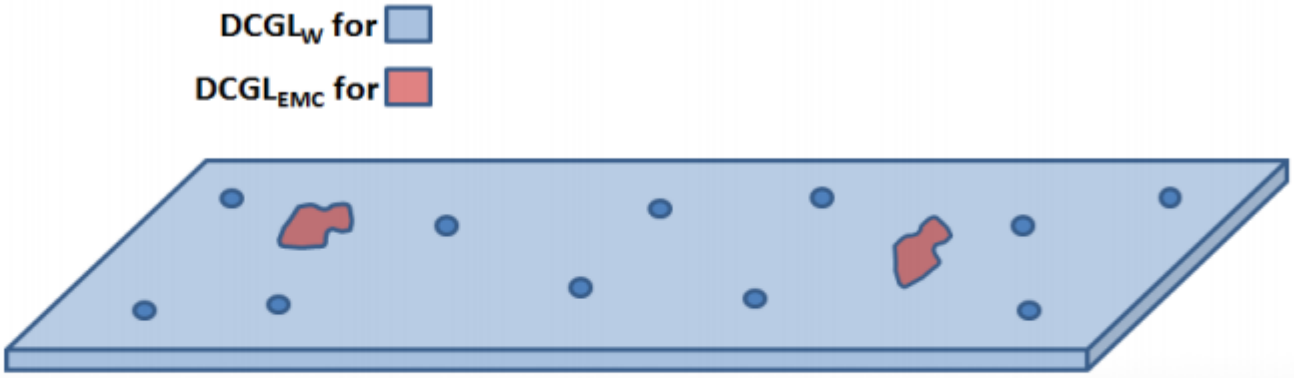

$DCGL_{EMC}$ = Area Factor x $DCGL_W$

- **$DCGL_W$**
  - DCGL for radionuclide **in a wide area.**
  - **Random or systemic sampling** is required to obtain a representative concentration in a survey unit, which will be compared to $DCGL_w$ through WRS or Sign test (w in DCGLw came from W in WRS test)
- **$DCGL_{EMC}$**
  - DCGL for radionuclide **with elevated conc. in a small area (hot spot)**.
  - **Judgmental sampling** is required to identify the hot spot and to know its concentration which will be compared to $DCGL_{EMC}$.

Multi-Agency Radiation Survey and Site Investigation Manual(2002)

- Historical Site Assessment
  - 오염의 특성 및 범위 결정
    (HSA 및 오염범위조사 결과에 근거)
- Scoping Survey
  - 최종상태조사에의 입력자료 제공
    (MARSSIM의 주요 목적)
- Characterization Survey
  - 부지의 오염도에 따른 지역 분류
- Remedial Action Support Survey
  - Remediation alternatives 평가
- Final Status Survey
  - 부지 고유 DCGL 계산을 위한 입력자료 제공

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1. CHARACTERIZATION : CONCEPT

1.1 Characterization

The collection of all information needed to describe, in adequate detail, the following:

- The hazards present at/in the facility
- The condition of the facility structure as it may affect worker health and safety
- The extent, nature, and concentration of radiological and hazardous chemical contamination
- The institutional, legal, and technical restraints on decommissioning alternatives

Characterization is an iterative process that precedes and parallels actual decommissioning.