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Decontamination and Disposition of Facilities

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Radiological Survey Results - Release to Unrestricted Use, SRE Region VIII

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ABSTRACT

The results of the radiological survey for Region VIII of the SRE facility are described. All survey results are below the applicable limits, indicating that this area may be released for unrestricted use.

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## 1.0 INTRODUCTION

This document covers Region VIII of the SRE facility (Figure 1). The area consists of the paving to the south and west of Building 143 to approximately the enclosure for T1/T2 and T3 pits. It includes the drainage channel along the southwest to south edge of the paved area.

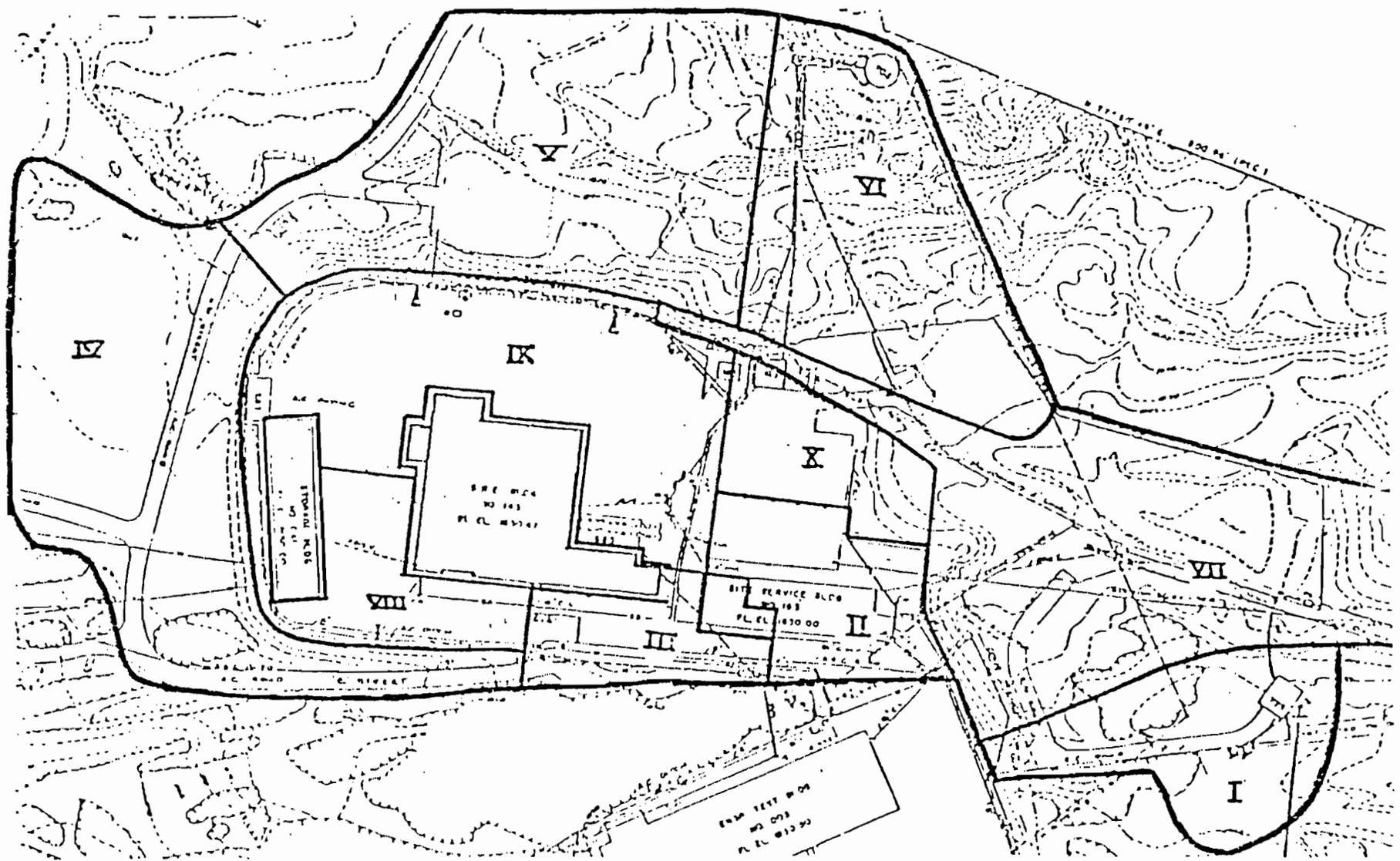


FIGURE 1  
SRE FACILITY



The contamination/radiation limits for unrestricted use that were applied in decontaminating this area are shown in Table 1 and the requirements for survey measurements in each region are shown in Table 2.

TABLE 1  
RESIDUAL RADIOACTIVITY LIMITS  
FOR RELEASE FOR UNRESTRICTED USE

	Total	Removal
<u>Surfaces</u>		
Alpha	100 dpm/100 cm <sup>2</sup>	20 dpm/100 cm <sup>2</sup>
Beta	0.1 mrad/hr at 1 cm through 7 mg/cm <sup>2</sup> absorber	100 dpm/100 cm <sup>2</sup>
<u>Soil</u>	100 pCi/g gross detectable beta	



TABLE 2  
SURVEY MEASUREMENT REQUIREMENTS

Region	Removal Contamination	Surface Radiation	Soil Samples	Concrete Samples	Water Samples
I	X	X	X	X	X
II	X	X	X		
III		X			
IV	X	X	X		
V		X	X	X	
VI		X	X		
VII		X	X		X
VIII		X			
IX	X	X	X		
X	X	X	X		
041	X	X			
063	X	X			
143 Offices	X	X			
143 High Bay	X	X	X	X	X

Measurements of removable contamination are omitted from those areas that consist solely of soil or asphalt-paved surfaces



## 2.0 SURVEYS AND RESULTS

### A. SURFACE RADIATION

At the conclusion of the D&D effort, a survey was conducted using three survey instruments, a Technical Associates Model CP-7 ion chamber, a Ludlum Model 12 with a thin-window pancake GM detector, and an Eberline Model PRM-5-3 low-energy gamma detector. The Ludlum GM detector and Eberline low-energy detector were used for their faster response and audible output. The CP-7 showed an average reading of 0.04 mrad/h for Region VIII which is a typical reading in all uncontaminated areas at Santa Susana. All readings with the CP-7 were below the Table I limit of 0.1 mrad/h. Surveys were performed as specified in N704TP99008, "Radiological Survey Plan, Support of D/D Program Operation at T143, SRE," R. K. Owens. Copies of survey results and data sheets are retained by Radiation and Nuclear Safety.



### 3.0 CONCLUSIONS

In each type of test performed, all samples indicated levels less than those limits prescribed by the Decontamination and Disposition of Facilities Program for release for unrestricted use.

All appropriate surveys indicate that current existing radioactivity in the area is below the applicable limits for release for unrestricted use.