



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

June 23, 1977

MEMORANDUM FOR: Region III Files

THRU: G. T. Lonergan, Chief, Materials Radiological  
Protection Section

FROM: W. B. Grant and C. T. Oberg, Radiation Specialists

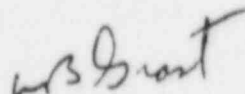
SUBJECT: KERR-MC GEE CHEMICAL CORPORATION, WEST CHICAGO, ILLINOIS  
LICENSE NO. STA-583  
MOBILE RADIATION SURVEY EXTERNAL TO PLANT AND WASTE  
STORAGE AREA, AND LOCATIONS IN AND AROUND WEST  
CHICAGO, ILLINOIS

On June 21, 1977, two RIII inspectors performed a radiation survey of the subject locations riding in an automobile and while walking. The survey instruments used were a Thyac-II (NRC-CS-0321, calibrated April 5, 1977) and a PRM-6 (NRC-CS-1805) with a NaI (Tl), gamma scintillation detector probe SPA-3 (NRC-CS-1819, not calibrated, relative readings). The locations measured are shown on the attached sketches with the readings observed. There is one location, about 400-500 yards south of the Kerr-McGee site, across Roosevelt Road (Route 38), off Joliet Road on Joy St. at the corner of Melolane, where an apparent significant reading was observed with the SPA-3 gamma scintillation detector system. The reading was about a factor of two greater than the observed background readings. All other readings indicated on the sketch appeared to have been influenced by the waste pile at the Kerr-McGee site.

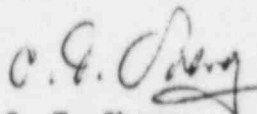
A tour around the fenced dump area at Reed-Keppler park was also made. Measurements made in this area also gave relative readings of about twice background with the same gamma detector. Driving through the town of West Chicago, fluctuations in the instrument relative readings were observed to be slightly above background on occasion which may or not have been influenced by the plant site and residues.

June 23, 1977

Further investigation and detailed radiation surveys should be performed in the West Chicago, Illinois area to discern apparent locations of plant residues used as fill and/or apparent transport and build up as a result of meteorological conditions.



W. B. Grant  
Radiation Specialist



C. T. Oberg  
Radiation Specialist

Attachments: as stated

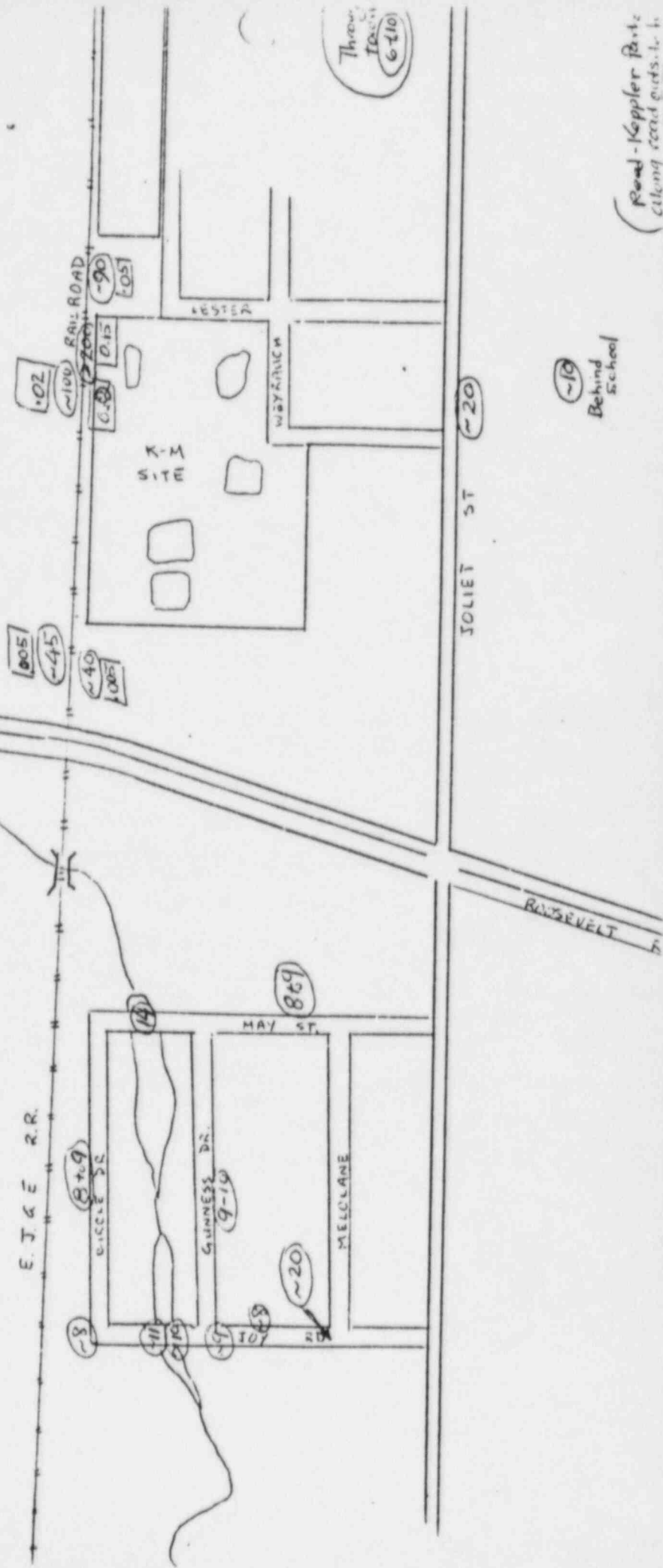
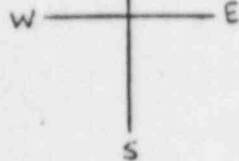
WRC-C5-1819 (relative reading)

Thyae II, MRC-65-0321 - I

PRM-C, NRC CS-1805, with -C

SPA-3 scint. detector

WRC-C5-1819 (relative reading)



(Road-Koppler Point  
along road cuts to the

6/21/77  
WBG & CTC

(864)

CIRCLE DR.

(8)

(14)

(11)

(10)

GUNNESS DR  
(9 to 10)

(9)

507

(8)

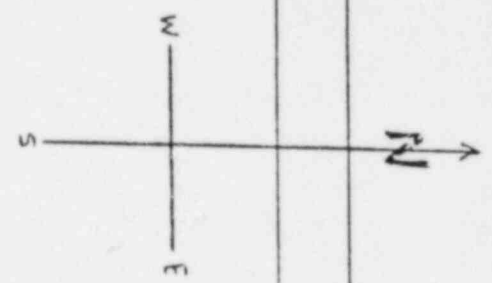
RD

MAY ST

(869)

(20)

MELD LANE



JOLIET ST (RTE 12)