

Office Memorandum • UNITED STATES GOVERNMENT

TO : Lyall Johnson, Chief, Licensing Branch
Division of Licensing and Regulation

FROM : Lester R. Rogers, Chief, Radiation Safety Branch
Division of Licensing and Regulation *L.R. Rogers*

SUBJECT: D. E. MAKEPEACE DIVISION
ENGELHARD INDUSTRIES INC.
DOCKET NO. 70-139

SYMBOL: DLR:RSB:CMF

DATE: FEB 15 1960

Conclusion:

The information contained in the subject's letters of December 15, 1959 and January 22, 1960 for an amendment to permit the incineration of radioactive waste material is not satisfactory from a radiological safety standpoint. To complete our evaluation of this proposal, a description should be submitted of the radiation safety procedures to be followed in handling the ash from the incinerator.

The applicant plans to incinerate approximately 200 lbs. of waste material per day which will require about a 2-hour burning time. To determine compliance with 10 CFR 20, air samples will be taken during incineration of the stack and at downwind locations and monitored for alpha activity on a gas flow proportional counter.

The area near the incinerator is not frequently occupied. The incinerator operator will be provided with film badges and periodic urinalyses will be made. No more than 100 drums of ashes will be stored at any one time. They will be disposed of by burial at sea. We assume by transfer to a sea disposal licensee. It should be pointed out that sea disposal requires special approval from the Commission.

Incinerator Construction:

Drawing No. 50013 dated December 3, 1959 shows the construction of the 3/16-sheet-steel incinerator. The point of exhaust is 22 feet above the surface of the ground.

Incinerator Location:

Drawing No. 50016 dated December 4, 1959 shows the location of the incinerator with respect to the plant area and the Turnpike Lake, a nearby body of water. In connection with this application, we have reviewed a memo dated January 4, 1960 from W. A. Brobst, Health and Safety Division, CDO, pointing out possible public relations problems from

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smoke blowing over the lake which is used for recreational purposes and suggesting the permissible limit for air concentration in the proposed 10 CFR 20 be used since this is the limit the company is using in incinerating contract wastes. The licensee's letter of January 22, 1960 specifies that wastes will not be incinerated when the wind is blowing toward the lake because of monitoring difficulties. The licensee is required to comply with the present 10 CFR 20, and we have no basis for changing the airborne concentration limit in this case.

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With regard to disposal procedure by burial at sea, we suggest you refer this matter to the Radiation Safety Branch and to the Isotopes Branch of this Division.