

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. C4007604/82-01(DEPOS)

Docket No. C4007604

License No. SUB-908

Licensee: Vistron Corporation
Fort Amanda and Adgate Roads
Lima, OH 45802

Facility Name: Vistron Corporation

Inspection At: Vistron Corporation

Inspection Conducted: July 12-16 and 26, 1982

Inspector: N. A. Nicholson

Approved By: M. C. Schumacher, Chief
Independent Measurements and
Environmental Protection Section

N. A. Nicholson
8/1/82
A. B. Januska
8/1/82

Inspection Summary

Inspection on July 12-16 and 26, 1982 (Report No. 04007604/82-01(DEPOS))
Areas Inspected: Non-routine, announced inspection of an expired licensed facility to determine the site's radiological status for license termination consideration. The following records were reviewed: shipping papers to confirm offsite disposal of licensed material (^{238}U); and effluent piping diagrams to verify no pathways exist for offsite radiological migration. The inspector accompanied an NRC contractor, Oak Ridge Associated Universities (ORAU), on a site survey. Results are pending and will be published in a ORAU final report, projected date fourth quarter 1982. Results will be compared to NRC Draft Guidelines for Decontamination of Facilities. The inspection involved 29 inspector-hours onsite by one NRC inspector.

Results: No apparent items of noncompliance were identified. Further response from NMSS is anticipated based on pending contractor survey results.

DETAILS

1. Persons Contacted

*R. C. Shower, Supervisor, Manufacturing Control and Office Services
Larry Hone, Contract Maintenance Coordinator
Dave Johnson, Maintenance Engineering Assistant
Roger Jones, Engineering Technician

*Discussed inspection findings July 16 and 26, 1982.

2. Background

Vistron Corporation was licensed for manufacture and storage of a depleted uranium (^{238}U) catalyst for acrylonitrile production, a component of various plastics. This catalyst was discontinued in 1971 and stored onsite until 1979 when transferred offsite for disposal. Two licenses were issued authorizing possession of this material: SUB-756 authorizing catalyst production was terminated by license amendment April 12, 1979; SUB-908, a storage license, was allowed to expire March 31, 1981, following license termination requests dated June 12, 1980, and February 3, 1982, to Nuclear Material Safety and Safeguards (NMSS). No termination amendment has been issued pending closeout survey results.

Licensee representatives stated process equipment was decontaminated in 1971. A licensee contractor conducted a site survey in 1977 and identified several contaminated areas, primarily Acrylonitrile Plant 1, collection ponds, and ground surfaces of storage and loading areas. The licensee removed topsoil to a depth of one inch from several areas in accordance with the contractor's report. Approximately 1000 drums of contaminated soil and catalyst were transferred to Barnwell, SC, for disposal during August and September 1979, according to licensee records. No material is currently stockpiled or in storage onsite as verified by observation during this inspection.

3. Site Survey

Oak Ridge Associated Universities (ORAU) was contracted by NMSS to determine the radiological status of the site. A Region III inspector accompanied ORAU representatives during the July 12-16, 1982, survey. Direct reading measurements were taken with pancake scanners and scintillation probes coupled to ratemeters; surfaces were smeared for removable contamination; and various onsite environmental samples-- soil from ground surfaces, and water and sediment from waste product collection ponds-- were collected for further analysis. Preliminary results, determined at the conclusion of the survey, indicate residual contamination in the following areas: the Catalyst Plant and Warehouse, Acrylonitrile Plant 1, the incinerator area northwest of Acrylonitrile Plant 1, and Burning Pond. A more complete final report will be issued by ORAU.

In addition, the inspector took smear samples for removable contamination and direct readings; results are in Table 1.

4. Effluent Pathways

All contaminated effluent from the Catalyst and Acrylonitrile Plants is contained in the Deep Well Pond, V-1 Pond, and Burning Pond. No offsite pathways for radiological effluents exist according to licensee representatives' statements and piping diagrams.

Attachment: Table 1, Survey
Results

Table 1

Smear Results and Direct Reading Measurements*

Location	Smear(dpm/100cm ²)		Direct Reading(μ R/hr)
Catalyst Plant			
Inlet box, U ₃ O ₈ hopper	6.8	12.6	20
Catwalk railing	3.6	8.6	20-30
U ₃ O ₈ hopper face	651	1068	100
PR 5001 - Process Equipment	<1	NAB**	20-30
PR 5110 - Process Equipment	NAB	1	20-50
Storm drain	7	14	
3rd/level, ledge near U ₃ O ₈ hopper	4	6	
Acrylonitrile Plant 1			
Reactor D, 3rd level, effluent pipe	NAB	NAB	7
Reactor D, 2nd level, floor	NAB	NAB	---
Reactor D, 2nd level, trench at reactor base	NAB	NAB	10
Reactor C, 2nd level, edge	NAB	NAB	---
Reactor A, 2nd level	NAB	NAB	---
North Storm drain, 2nd level	NAB	5	12
Lunchroom			
Northeast door	<1	<1	5
Drain, women's restroom	<1	<1	5
Table	NAB	NAB	5
Drain, men's restroom	NAB	NAB	---

* Smears counted on Region III Canberra Model 2201 Low Level Alpha, Beta Gas Flow Proportional System. Direct readings taken with Eberline Micro R meter, PRM-7, Model 350, NRC 010285, calibrated April 4, 1982.

** NAB - Not above background. Background on day of analysis: α = 2 counts/10 min; β = 21 counts/10 min.