

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 03007490/81-01

Docket No. 03007490

License No. 12-11286-01

Priority I

Category B

Licensee: Atomic Disposal Company, Inc.  
Post Office Box 35  
Tinley Park, IL 60477

Facility Name: Atomic Disposal Company, Inc.

Inspection At: 7221 and 7225 Duvan Drive, Tinley Park, IL

Inspection Conducted: June 26, 1981

Inspector: C. T. Oberg  
Radiation Specialist

July 30, 1981

Approved By: D. G. Wiedeman, Acting Chief  
Materials Radiation Protection  
Section 1

July 31, 1981

Inspection Summary

Inspection on June 26, 1981 (Report No. 03007490/81-01)

Areas Inspected: Routine, announced inspection of licensee's organization; Licensee Audits; Training; Radiological Protection; Materials, Facilities, and Equipment; Receipt and Transfer of Material; Shipping Incidents; Exposure Control - External; Exposure Control - Internal; Exposure Controls - ALARA Program; Posting, Labeling, and Control; Surveys; Radioactive Effluents and Waste Disposal; Notification and Reports; Quality Assurance; Environmental Monitoring Program; Emergency Preparedness Program; and Confirmatory Measurements. The inspection involved seven inspector-hours onsite by one NRC inspector.

Results: Of the 18 areas inspected, no apparent items of noncompliance were identified.

## DETAILS

### 1. Persons Contacted

\*J. P. Bell, President of Atomic Disposal  
\*R. Bassett, Secretary of Atomic Disposal  
K. C. Dunn, Fire Inspector, Village of Tinley Park

\*Denotes those present at the exit interview.

### 2. Scope of Inspection

This routine, unannounced inspection covered the licensee's operations since the previous inspection of November 14, 1980.

The licensee's operations have not changed since the previous inspection.

### 3. Organization

The licensee's organization and management control over the licensed program remains as specified in Report No. 03007490/80-02.

The licensee submitted an application in November 1980 to amend their license and to have the name of the company changed to ADCO Services, Inc. As of the date of this inspection, the licensee has not received an amendment to their license which reflects their name change.

In accordance with ICC regulations, the licensee has formed a trucking company, ADCOM Express, Inc. This corporation has the same ownership and management structure as Atomic Disposal Company and maintains the same drivers employed under the new corporation. According to the ICC, Atomic Disposal Company could no longer operate as a private carrier for the parent company because they were not carrying their own material. Thus, they formed ADCOM Express, Inc.

No items of noncompliance were identified.

### 4. Licensee Audits

The licensee performs informal audits of his personnel on an unscheduled frequency several times per month. These audits consist of a review of shipping papers, truck logs, survey forms, and oral interrogation of workers.

The licensee's consultant performs an audit of the facilities on a monthly frequency and includes the performance of surveys. These monthly visits are documented.

No items of noncompliance were identified.

5. Training, Retraining, and Instructions to Workers

The licensee continuously reviews the requirements of the commercial waste burial sites and updates their procedures as necessary.

Atomic Disposal Company, Inc. holds monthly office meetings and training/retraining sessions with their employees. During these sessions personnel are brought up to date on any changes or new requirements in waste handling and the NRC and DOT regulations. The subjects covered are documented as shown in the attached Exhibit A.

Periodically, these sessions include a Technical Instruction Session. During these sessions, the licensee goes into more detail and includes more technical information and instruction for their employees. These sessions include input and assistance from their Consultant. The attached Exhibit B delineates the topics discussed at the last Technical Session on April 22, 1981.

In addition, the licensee continues to provide and document training as discussed in the previous Report No. 03007490/80-02. All employees receive training commensurate with their position as required by 10 CFR 19.12.

No items of noncompliance were identified.

6. Radiological Protection and Emergency Procedures

The licensee's radiological protection and emergency procedures remain as outlined in the previous report.

The requirements of Amendment 15, to perform tests of the sprinkler system at six month intervals, are being fulfilled by the Tinley Park Fire Prevention Bureau on a frequency of three to six months. The licensee receives a report from Tinley Park of this Fire Prevention Survey (see attached Exhibit C).

During this inspection, the inspector reviewed the tests performed on the sprinkler system with the Tinley Park Fire Inspector. He explained that both the static and dynamic tests are performed on the system and pointed out the location of the valves used to control and test the system. The valves are locked in the open position. The sprinkler system and the tests performed on it are quite adequate for the required fire protection.

No items of noncompliance were identified.

7. Materials, Facilities, and Equipment

Materials

The licensee's inventory of stored waste packages, predominantly drums, amounted to a total of 1285 units containing byproduct material. Also

on hand were sturdy wood boxes containing 1.5 kilograms of source material. This inventory, dated June 23, 1981, was available on computer sheets. The curie content of the 1285 packages came to a total of 17.56 curies, well within the license limits.

The computer inventory service is provided by the licensee's consultant and is updated weekly by the addition of new packages and deletion of the packages shipped. Packages which are received and shipped within the seven day period are not entered on the computer inventory. Receipt and shipping records are maintained for these packages just as they are for all others. No packages on hand had been received prior to February of 1981; no packages exceeded the six month retention period specified by the license.

At the time of this inspection, the licensee had a greater number of packages on hand than they would normally have. This was due to a concentration of effort directed at collecting source material from a specific customer and shipping the packages to the burial site from their customer's site. During the period in which this took place, the licensee shipped no material from his own location but did continue to receive byproduct material shipments from other customers. Thus, the inventory of packages increased during this period. All storage areas were occupied with drums which were stacked two high. Sufficient aisle space was maintained to move around the areas with ease. The freezer held drums containing animal carcasses. These drums were also stacked two high.

The licensee is planning to ship one or two shipments a week beginning the week of June 29, 1981. This should reduce the inventory of packages rather quickly.

#### Facilities

Subsequent to receipt of Amendment No. 17 dated December 31, 1980, the licensee initiated use of their additional space for material storage. In addition, they now have control over the fenced parking areas immediately East of their facilities.

The licensee shares the lot with another company who uses the lot during daylight hours.

Amendment No. 17 also authorized more space for the licensee. The additional space provides better control and a natural flow of packages in and out of their facilities. Presently, the licensee receives packages at the East entrance to the building and loads their trucks for shipment through the North-West entrance.

#### Equipment

The licensee's equipment remains as described in previous reports and in the license application backup information.

The licensee's survey instruments presently in use have been calibrated within the required frequency.

No items of noncompliance were identified.

8. Receipt and Transfer of Material

The licensee's receipt and transfer of waste remains as described in previous inspection reports.

The licensee is in compliance with the license condition which limits the length of time they are authorized to hold packages to six months.

No items of noncompliance were identified.

9. Shipping Incidents

In June 1980 a shipment of low specific activity material arrived at the Richland, Washington burial site with insufficient bracing. A drum fell on its side when the rear door of the truck was opened, and the package was observed to be leaking liquid. One drum had a one-half inch gash on its side.

As an enclosure to our letter dated December 4, 1980, the licensee received an order imposing civil penalties for these violations. The licensee paid the fine imposed by the order.

No additional shipping incidents have occurred.

No items of noncompliance were identified.

10. Exposure Control - External

The licensee has continued to control external personnel exposure as discussed in the previous inspection report. A review of the personnel dosimetry records from October 1980 to the date of this inspection showed the highest individual quarterly whole body exposure to be 670 millirem. Starting in May 1981, the licensee has issued two ring badges to individuals loading and moving waste packages in the warehouse. The highest extremity exposure for May 1981, was 200 millirem.

Radiation surveys, direct readings, and wipes are performed as required on a monthly frequency and the results are recorded. During this inspection, the data from November 7, 1980, through June 1, 1981, were reviewed by the inspector and exhibited similar results to those presented in the previous inspection report.

Since the last inspection, the highest fixed radiation level observed was 10 millirem/hr. The highest level of removable activity was 165 dpm/100 cm<sup>2</sup>. This was subsequently decontaminated.

No items of noncompliance were identified.



11. Exposure Control - Internal

The licensee's internal exposure control remains as discussed in previous inspection reports. Monthly air samples are taken and the data obtained is evaluated to determine if any individuals are receiving an internal exposure. The results of air sample analyses were not significantly different from background.

No items of noncompliance were identified.

12. Exposure Control - ALARA Program

This licensee does not have a specific ALARA program. However, as seen in the attached Exhibit B, the licensee is making his employees aware of the ALARA concepts and purposes. The next Technical Training Session planned by the licensee will include slides on Radiation Protection.

No items of noncompliance were identified.

13. Posting, Labeling and Control

The licensee continues to be in compliance with posting and labeling requirements. Areas in which higher radiation levels exist are controlled by posting and roping if necessary.

In accordance with 10 CFR 19.11, the required documents were posted as specified.

No items of noncompliance were identified.

14. Surveys

The licensee performs surveys on waste material picked up by them and on material in trucks ready for shipment. These surveys are being performed in accordance with DOT and NRC regulations.

Routine monthly surveys are performed by the licensee's consultant. These include air sampling and surveys of the licensee's grounds. The results of these surveys have been discussed in Section 10 and 11 of this report.

In addition to the foregoing, the licensee performs periodic surveys outside the plant building and around the fenced lot. He has not been documenting these surveys but is considering doing so in the future.

No items of noncompliance were identified.

15. Radioactive Effluents and Waste Disposal

This licensee generates no liquid or gaseous effluents. Authorized activities consist of handling packaged waste, receiving it from

their customers, holding it for a short period in their facilities, and then shipping it in their trucks to an authorized waste disposal site. The licensee does not generate any waste of his own.

The inspector checked approximately five percent of the packages on hand. There was no indication of freestanding liquid, disagreement with the labeling, nor of leakage or loss of integrity from rusting, punctures, voids, or improper sealing. All packages appeared to be properly identified, strong, tight packages in accordance with LSA and/or Type A packaging requirements.

The licensee had about 15 or 20 packages that were overpacked in 85 gallon drums because of loss of package integrity. They also had a 55 gallon drum with a damaged lid that did not seal properly. The licensee stated this drum would be overpacked before shipping. They did not and will not open a package without authorization, even to replace a damaged lid on a full drum. Questionable drums will be overpacked before final shipment.

No items of noncompliance were identified.

16. Notifications and Reports

Since the last inspection, the licensee has had no reportable incidents or events.

The licensee has had no occasion to make a notification to workers.

No items of noncompliance were identified.

17. Quality Assurance

The licensee's QA program remains as outlined in the previous report.

Since they have been purchasing reconditioned, 17H Specification drums for distribution and use by their customers, the licensee has experienced fewer difficulties with the final packages. Utilization of the 17H Specification has effectively improved the integrity of the packages (drums).

No items of noncompliance were identified.

18. Environmental Monitoring Program

At present, the only environmental monitoring performed by the licensee is to obtain approximately four wipe samples outside of their building each month. These have been performed by their consultant and have shown no significant contamination.

No items of noncompliance were identified.

19. Emergency Preparedness Program

The emergency preparedness program remains as outlined in the previous report.

No items of noncompliance were identified.

20. Confirmatory Measurements

The inspector performed direct radiation survey measurements during the tour of the facilities. These measurements were made using a XETEX 305B, No. 0141, beta-gamma, GM, digital ratemeter, calibrated on May 2, 1981, and a PRM-6 pulse rate meter, NRC No. 7305, with a LEG-1 low energy gamma probe, calibrated on May 29, 1981. The PRM-6 unit reads only in counts per minute (cpm) and was used to localize low levels of gamma radiation.

The PRM-6 instrument indicated 500 to 750 cpm at about 20 feet from the overhead door at the front of the building, outside of the small warehouse. In the fenced parking lot East of the building, measurements ranged from background (200-300 cpm) at the furthest fence point to 1000 cpm at the receiving door. At this receiving door a reading of about 0.3 mR/hr was obtained with the XETEX. At the rear and outside of the building, background readings were obtained with both instruments.

With the exception of one drum containing some higher levels of activity, radiation levels throughout the building ranged from background (0.0 mR/hr) to about 10 mR/hr. The one high level drum gave about 20 mR/hr at three feet and just under 100 mR/hr on contact.

The radiation levels measured throughout the building were in good agreement with those obtained by the licensee's consultant on June 1, 1981.

No items of noncompliance were identified.

21. Exit Interview

The inspector summarized the findings of this inspection as noted in the body of this report with Mr. Bell and Mr. Bassett at the conclusion of the inspection. The licensee was advised that there were no items of noncompliance identified during this inspection.

The licensee asked if the inspector could check into the status of their amendment to have the name of the Corporation changed from Atomic Disposal Company, Inc. to ADCO Services, Inc. They also asked if there would be any problem in relocating to another location on the same street they are now on. The new location would provide them with their own building, not one shared with other persons and companies.



On June 30, 1981, the inspector contacted NRC Licensing, Headquarters, Washington, D.C. and learned that the company name change had been erroneously omitted from Amendment No. 7 dated December 31, 1980. They further stated that they would take care of this and forward a corrected copy of the amendment to the licensee. The inspector also questioned licensing personnel with respect to a relocation of the company. Licensing could see no problems with this.

On this same date, the inspector called the licensee and informed him of what he had learned from NRC licensing.

Attachments:

1. Exhibit A
2. Exhibit B
3. Exhibit C

EC	OV.	GT.	EP.	WG.	UL	UN.	AN.	PR.	FR.	EB.	AN.	1981
							✓	—	✓	✓	✓	PACKAGING
							✓	—	✓	✓	✓	LABELLING
							✓	TECHNICAL	✓	✓	✓	DRUM INSPECTION
							✓	SESSION	✓		✓	RSR COMPLETION
							✓		✓	✓		CONTAMINATION
							✓		✓	✓	✓	SAFETY & EMERGENCY PROCEDURES
							✓		✓	✓		CERTIFICATIONS
							✓		✓		✓	WAREHOUSE SECURITY
							✓		✓			CLEANLINESS
							✓	—	✓	✓	WINTER DRIVING	DRIVING
							✓	—	✓		✓	VEHICLE MAINTENANCE
							✓	—	✓		✓	CUSTOMER COURTESY

GM/stock

ADCO SERVICES, INC.

P.O. BOX 35 • TINLEY PARK, ILLINOIS 60477 • 312/429-1660

April 22, 1981

TO: FILE

FROM: JIM

SUBJECT: Technical Instruction Session

A technical instruction session was held on April 20, 1981. This session was attended by the following people: Robert W. Bassett, Terry Wrzesinski, Vernon Olsen, Gregory Cook, Donald Horn, Ronald Christensen, Sharon Ertl, and Angeline Caruso.

The subjects discussed were as follows:

1. The "ALARA" concept. An in depth lecture was given on the USNRC Regulatory Guide draft titled "Instruction Concerning Risk from Occupational Radiation Exposure, dated May, 1980.
2. The ADCO Services Emergency Plan as previously submitted to the NRC.
3. The "inverse square" law.
4. Metric conversions (millicuries to microcuries, microcuries, to millcuries, curies to millicuries, etc.).
5. Importance of completing Radioactive Shipment forms correctly.
6. Importance of inspection of container exteriors and the proper securing of lids on drums.
7. The importance of area cleanliness, personal cleanliness, and vehicle cleanliness.
8. The importance of keeping equipment in the proper working order and reporting of any equipment that is malfunctioning.

This instruction period was conducted by James Bell of ADCO Services, and Stan Buhr of Stan Huber Consultants. The instruction period covered approximately 1 1/2 hours. Visual aids consisting of the overhead projection of transparencies were utilized. All questions were satisfactorily answered.

*DBD*  
*4/26/81*

EXHIBIT C  
**TINLEY PARK FIRE PREVENTION BUREAU**

6825 W. 153rd PLACE  
TINLEY PARK, ILLINOIS 60477  
Phone: 532-5656

**FIRE PREVENTION SURVEY**

Date 2-17-81

Location 7221-7225 Duvan Drive

Occupied by ADCO Services, Inc. Phone 429-1660

Type of Business Storage and disposal of radioactive surgical equipment

Business Owner James Bell Phone 429-1660

Business Owner's Address 7221-7225 Duvan Drive; Tinley Park, Illinois

Building Owner or Agent Duvan Drive & Associates

In case of emergency - Notify 1. James Bell Phone 532-8684  
2. Bob Bassett 748-4935  
3. Stan Huber 815-722-8009

**Conditions Found**

79a-1 Properly maintain emergency battery lighting. Section 11.2

80-1 Provide sprinkler heads in walk-in freezers 10 and 15. Section 14.3

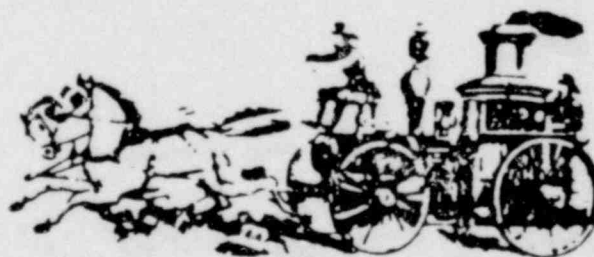
No new violations or recommendations inspection dated 2-17-81.

All fire alarms to the Village Alarm Board tested properly on this date.

"The above suggestions refer to conditions observed at the time of our last survey which may cause injuries or property losses. The observations are not meant to imply that every condition has been uncovered nor that we are in a position to advise as to whether you are in compliance with Occupational Safety and Health Act of 1970, or any similar law, and no act or statement made by us should be construed in this manner."

Tinley Park Fire Prevention Bureau

[Signature]  
**FIRE PREVENTION WEEK IS EVERY WEEK**



[Signature]  
6/26/81