

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

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: IN THE MATTER OF: :
: :
: BECTON DICKINSON PUERTO RICO, INC. : ADMINISTRATIVE ORDER
(Juncos Landfill Site) : :
: :
: Respondent : Index No. II-CERCLA-40303
: :
: Proceeding Under Section 106 :
of the Comprehensive Environmental :
Response, Compensation and :
Liability Act (42 U.S.C. §9606) :
: :
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JURISDICTION

The following Administrative Order ("the Order") is entered into with Becton Dickinson Puerto Rico, Inc. ("Respondent", or "BD") pursuant to the authority vested in the President of the United States by Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. §9606, which authority was delegated to the Administrator of the United States Environmental Protection Agency ("EPA") by Executive Order 12316, August 20, 1981, 46 Fed. Reg. 42237, and redelegated to the Regional Administrator, Region II. Pursuant to Section 106 of CERCLA, the Commonwealth of Puerto Rico has previously been notified of this Order.

FINDINGS

1. Respondent is a person as defined in Section 101(21) of CERCLA, 42 U.S.C. §9601(21), and is a responsible party under Section 107(a)(3) of CERCLA, 42 U.S.C. §9607(a)(3).
2. Between the years 1957 and 1977 the Juncos Landfill, located south of 9th Street and east of State Road 198 in Juncos, Puerto Rico, served as a municipal landfill. The landfill also served as a disposal site for industrial wastes which included broken and/or intact mercury-containing thermometers produced at the Becton Dickinson Puerto Rico, Inc. plant located at State Road 31, KM 1.8, Juncos, Puerto Rico. This landfill is a facility within the meaning of §101(9) of CERCLA, 42 U.S.C. §9601(9) (hereinafter "the site" or the "Juncos Landfill" or "the

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facility"). BD did not and, at the time this Order is entered into, does not own or operate the site.

3. The following information is based on interviews, conducted in the Winter and Spring of 1983 by EPA and the Puerto Rico Environmental Quality Board ("EQB"), of individuals familiar with operations at the Juncos Landfill and the disposal practices at the BD Juncos plant:

a) Respondent disposed of an average of in excess of 1000 broken off-specification and/or discarded thermometers per week at the site between the early 1960's and the mid-1970's; and

b) although steps usually were taken by BD to remove and reclaim the mercury contents of the thermometers by breaking the bulbs, mercury often remained in the stems, which were disposed of at the Juncos Landfill.

4. The following are results of an EPA site inspection conducted during the period September 6 through September 23, 1983:

a) mercury was detected in the ambient air in the southwest portion of the landfill at 29 ng/cubic meter;

b) leachate samples collected off-site contained mercury at concentrations ranging up to 2 parts per billion (ppb);

c) soil samples taken in the southwest portion of the site were contaminated with mercury at 78 parts per million (ppm), and soil samples collected in gardens and behind homes adjacent to the site were found to contain mercury at levels ranging up to 0.16 ppm; and

d) thousands of broken thermometer pieces, some still containing mercury, and some marked "B-D U.S.A.", were observed at the site and a representative sample collected.

5. During site inspections in August and September 1983, EPA personnel witnessed children playing on the site and in the leachate. In addition, during these inspections and on at least four other occasions in 1983, EPA personnel observed that gardens were planted on the north face of the Juncos landfill and that more than a dozen homes have been built along the north side of the site, abutting and/or on the site.

6. Mercury is a hazardous substance within the meaning of Section 101(14) of CERCLA, 42 U.S.C. §9601(14).

7. The presence of mercury at the facility, and its past and potential migration to surrounding soils, groundwater, surface water and/or air, constitutes an actual release and a threat-

ened release within the meaning of Section 101(22) of CERCLA, 42 U.S.C. §9601(22).

8. Direct contact with mercury and/or its compounds through ingestion, inhalation and/or contact with the skin may pose a significant threat to human health. Based on Paragraphs 1 through 7, above, and the conclusion of the federal Centers for Disease Control that the Juncos Landfill represented an immediate and significant risk of harm to human health, on March 15, 1984 EPA executed an administrative consent order (Index No. II-CERCLA-40301) with BD pursuant to Section 106(a) of CERCLA. That order required BD to perform specified immediate corrective actions at the site. By letter dated June 29, 1984 BD submitted to EPA a report describing its activities under that order.

9. Juncos Landfill is on the National Priorities List of known releases or threatened releases promulgated pursuant to Section 105(8)(B) of CERCLA, 42 U.S.C. §9605(8)(B).

10. In order to determine the nature and extent of the problem presented by the release and threatened release at the site, and to select an appropriate remedial alternative, a remedial investigation and feasibility study ("RI/FS") must be conducted in conformance with 40 CFR 300.68. The work plan appended hereto and labelled Appendix I conforms to 40 CFR 300.68.

DETERMINATION OF THE REGIONAL ADMINISTRATOR

11. Based on the above Findings, and pursuant to Section 106(a) of CERCLA, the Regional Administrator has determined that the release and threatened release of one or more hazardous substances from the facility may present an imminent and substantial endangerment to the public health and welfare and the environment.

ORDER

12. Complainant, the Regional Administrator, EPA Region II, and Respondent, Becton Dickinson Puerto Rico, Inc. ("the parties"), hereby consent and agree that BD shall undertake an RI/FS with regard to the facility in accordance with the requirements specified below. All activities performed pursuant to this Order shall be completed as soon as possible even though maximum time periods for their completion may be specified herein or in operations plans or work plans prepared hereunder.

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I. Remedial Investigation

A. Within 30 days of the effective date of this Order, Respondent shall submit to EPA for review and approval a detailed Operations Plan for the performance of a Remedial Investigation ("RI") in conformance with 40 CFR 300.68(a)-(j) and Appendix I of this Order. The Operations Plan shall fully describe how those activities called for in Appendix I will be implemented, and shall include but should not necessarily be limited to items 1 through 10, below:

1. a map depicting all sampling locations;
2. the number and types of samples to be obtained at each sampling location;
3. the overall management plan, including identification of contractors and subcontractors and their respective responsibilities for performance of the specific tasks set forth in Appendix I;
4. a detailed schedule for performance of the specific tasks set forth in Appendix I.A.;
5. a Quality Assurance/Quality Control ("QA/QC") plan for all investigations to be performed [the QA/QC plan shall be completed in accordance with Section 10 of the publication, Test Methods for Evaluating Solid Waste ("SW-846"), and the guidance appended hereto and labelled Appendix II];
6. provision for completing a QA/QC evaluation of laboratory data and sampling and analytical procedures used for each sample obtained within 2 weeks of completion of laboratory analyses;
7. a description of the chain of custody procedures to be followed, which shall conform to those set forth in Section 1.3 of SW-846;
8. a Health and Safety plan;
9. a Contingency plan for conducting site activities; and
10. the curriculum vitae of all professionals expected to participate in the RI, and a description of the responsibilities and the anticipated levels of effort of each such professional.

B. EPA will review and comment on the Operations Plan. EPA will address its comments to Operations Plan conformance with sound management, engineering and scientific practices;

technological feasibility; and established environmental monitoring procedures. Within 15 days of BD receipt of the EPA comments, BD shall amend the Operations Plan as required by those comments or as otherwise approved by EPA and submit the modified document to EPA. EPA remains the final arbiter in any dispute regarding the sufficiency of the Operations Plan. At such time as EPA determines that the Operations Plan is acceptable, EPA will transmit to BD a written statement to that effect.

C. BD shall perform the RI in conformance with the Operations Plan as accepted by EPA, and Tasks 1 through 22 of Appendix I. Unless otherwise advised by EPA, BD shall submit a report of the RI ("the RI Report") within 10 months of the effective date of this Order. Included in the RI report shall be an assessment of the public health and environmental risks posed by the site. At a minimum, this risk assessment must include:

- 1) identification of critical contaminants;
- 2) identification of human receptors in the paths of contaminant migration, mobility of contaminants and specific routes to target organs (e.g., liver);
- 3) identification of the receiving media and/or ecological groups and migration pathways;
- 4) toxicology of each contaminant (acute and chronic toxicity for short- and long-term exposure, birth defects, carcinogenicity, synergistic and/or antagonistic associations, aquatic toxicity, ecological impacts on flora and fauna, etc.);
- 5) migration potential and environmental fate of each contaminant in site-specific terms (e.g., attenuation, dispersion and biodegradation are factors in the groundwater pathway); and
- 6) evaluation of potential for biomagnification and/or bioaccumulation in the food chain.

D. BD shall submit detailed progress reports to EPA on the fifteenth day of every other month following the effective date of this Order. The progress reports shall include the results of sampling and analysis, including all raw data and any available QA/QC evaluations with supporting documentation.

E. EPA will review and comment on the RI Report. Within 30 days of receipt of such EPA comments, BD shall amend the RI Report as required by those comments or as otherwise agreed upon by EPA and submit the modified document to EPA. Such amendments may require the performance of additional studies as found necessary by EPA. At such time as EPA determines that the RI

Report is acceptable, EPA will transmit to BD a written statement to that effect.

II. Feasibility Study

A. Within 30 days of receipt of EPA's acceptance of the RI Report, BD shall review the Feasibility Study work plan contained in Appendix I; determine if that work plan requires modification based on the results of the RI; and either submit to EPA a revised Feasibility Study work plan including any such modifications, or, if BD believes no such modifications are necessary, so notify EPA. The work plan must conform to 40 CFR 300.68(a)-(j) and Tasks 23 through 26 of Appendix I.

B. EPA will review the BD submittal referred to in the immediately preceding subparagraph (*i.e.*, either the modified work plan or the notification) and comment thereon. Within 15 days of receipt of the EPA comments, BD shall amend the work plan as required by those comments or as otherwise approved by EPA and submit the modified document to EPA. EPA remains the final arbiter in any dispute regarding the sufficiency of the work plan. At such time as EPA determines that the work plan is acceptable, EPA shall transmit to BD a written statement to that effect.

C. Within 60 days of receipt of EPA acceptance of the work plan, or within such other period of time as may be agreed upon by the parties, BD shall complete those activities specified therein and shall submit to EPA for review an Interim Feasibility Study Report ("Interim FS Report") which shall include a recommended remedial alternative. EPA will review and comment on the Interim FS Report. Within 30 days of receipt of such EPA comments, BD shall amend the Interim FS Report as required by those comments or as otherwise approved by EPA and submit the modified document to EPA. The Interim FS Report, as amended, also shall contain a conceptual design for the proposed remedial action, as described in Appendix I, Task 27, and shall conform to the format set forth in Appendix I, Task 28. This report shall constitute the Draft Feasibility Study Report ("Draft FS Report").

D. Following submittal of the Draft FS Report, EPA will announce the availability of both the RI Report and the Draft FS Report to the public for review and comment. Following the public comment period (which may involve both written and oral comments), EPA will determine if the reports should be modified or accepted as submitted, and will so notify BD in writing. Within 30 days of receipt of EPA's determination, or within such other period of time as may be approved by EPA, BD shall modify either or both of the reports (which may entail a change

in the recommended remedial alternative) as directed by EPA or as otherwise approved by EPA and submit the modified document(s) to EPA. EPA policy and guidance in effect at the time such public comment period is initiated shall govern the procedures to be followed. EPA remains the final arbiter in any dispute regarding the sufficiency of both the RI and FS Reports.

13. Reporting

A. Upon timely request by EPA, Respondent shall provide EPA or its designated representative with duplicate and/or split samples of any samples collected in furtherance of work performed in accordance with this Order.

B. Upon request by EPA, but in no event later than the times of submittal of the RI Report, the Interim FS Report and the Draft FS Report pursuant to Paragraphs 12.I.C. and 12.II.C. and D. (with respect to data and information pertinent to each of these reports, respectively), all data and information, including raw sampling and other monitoring data, generated pursuant to this Order by Respondent or on behalf of Respondent, shall be made available to EPA or its designated representative. No such data or information shall be destroyed without either:

- i. the express written approval of EPA; or
- ii. a written offer by BD to provide any such data and/or information to EPA, followed by BD's receipt of an EPA acknowledgement of receipt of such offer and the passage of 90 days during which EPA has not accepted such offer in whole or in part.

C. All records prepared or compiled by Respondent and delivered to EPA in the course of implementing this Order shall be available to the public unless identified as confidential by Respondent in conformance with 40 CFR, Part 2. (Furthermore, it is understood by the parties that EPA may release all such records to EQB, and EQB may make those records available to the public unless Respondent conforms with appropriate Puerto Rico law and regulations regarding confidentiality.) Records so identified shall be treated as confidential only in accordance with the applicable confidentiality regulations. Sampling and other monitoring data, and hydrological and geological information, may not be considered confidential.

D. The original and one copy of all correspondence, reports, work plans and other writings required under the terms of this

Order to be submitted to EPA shall be sent by certified mail, return receipt requested to:

Chief, Site Investigation and Compliance Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
26 Federal Plaza
New York, New York 10278

Attention: Wayne Noel Pierre, Project Officer

One copy of all such writings shall be transmitted by certified mail, return receipt requested to:

Chief, Waste and Toxic Substances Branch
Office of Regional Counsel
U.S. Environmental Protection Agency
Room 437
26 Federal Plaza
New York, New York 10278

Two copies of all such writings shall be transmitted by certified mail, return receipt requested to:

Director, Caribbean Field Office
Environmental Protection Agency
P.O. Box 792
San Juan, Puerto Rico 00902-0792

Attention: Carlos O'Neill, On Scene Coordinator

14. EPA Communications and Decisions

A. Written communications from EPA to BD shall be sent by certified mail, return receipt requested to:

Manager for Safety and Loss Prevention
Becton Dickinson and Company
Mack Centre Drive
Paramus, New Jersey 07652

One copy of all such correspondence shall be sent to:

Vice President and General Counsel
Becton Dickinson and Company
Mack Centre Drive
Paramus, New Jersey 07652

B. All decisions of EPA under this Order, including approvals; disapprovals; grants or denials of requests for extensions of time; and requests for modifications of reports, work plans,

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specifications, schedules and other work outputs will be communicated in writing to Respondent by the Chief, Site Investigation and Compliance Branch, U.S. Environmental Protection Agency, 26 Federal Plaza, New York, New York 10278.

C. No informal advice, guidance, suggestions or comments by EPA or EQB regarding reports, plans, specifications, schedules or any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain such formal approvals as may be required by this Order.

15. Respondent's Facility Coordinator and EPA Inspection Authority

A. Within 15 days of the effective date of this Order, BD shall provide EPA with the name, title, address, phone number and qualifications of its designated Facility Coordinator, who shall be responsible for oversight of the implementation of this Order, including all activities required herein. The Facility Coordinator shall have technical expertise sufficient to adequately oversee all aspects of the work contemplated by this Order. All correspondence and other writings from EPA to BD shall be made available to the Facility Coordinator. Counsel for BD shall not be eligible to be Facility Coordinator. BD shall have the right to change its Facility Coordinator at any time. However, BD shall notify EPA in writing at least five working days prior to any such change. If such advance notice is not feasible, notice shall be given by the best means and as far in advance as possible under the circumstances.

B. i. EPA and EPA's designated representatives, including but not limited to their employees, agents, contractors and consultants, and including the EPA-designated on-scene coordinator, shall have authority and shall be permitted to enter and freely move about the site and any other premises upon which work under this Order may be performed ("other premises") at all reasonable times, including but not limited to any time that work is being carried out pursuant to this Order, for the purposes of inspecting and observing Respondent's progress in implementing the requirements of this Order, or for the purpose of verifying the data submitted to EPA by Respondent concerning such implementation. Respondent shall forthwith honor all requests for access by EPA or EPA's designated representatives, and also, at reasonable times, shall permit such persons to inspect and copy all writings, including all data, in any way pertaining to work undertaken pursuant to this Order. Notwithstanding the above, EPA hereby retains all its inspection authority under CERCLA and the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. EQB and

its designated representatives, as well as any EPA contractor and its representatives, shall be eligible to be designated representatives of EPA under this Paragraph.

ii. EPA recognizes that at the time this Order is entered into BD neither owns nor operates the site. EPA further recognizes that BD may not own, operate or control other premises at which work under this Order may be performed. Nevertheless, BD shall not interfere with EPA access to the site or other premises. Further, to the extent practicable BD shall support and assist EPA in obtaining access to the site and other premises, and shall similarly support and assist EPA in exercising its inspection and other authority under this provision (including but not limited to review and copying of records).

16. Enforcement Actions

A. In the event that Respondent fails to adhere to any requirement of this Order; or, notwithstanding compliance with the terms of this Order, upon the occurrence or discovery of a situation as to which EPA would be empowered to take any further response action, including but not limited to an immediate removal, planned removal, and/or interim remedial action; or in the event of a release or threatened release not addressed by this Order; or upon the determination that action beyond the terms of this Order is necessary to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be posed by this facility; or under any other circumstances authorized by law and not inconsistent with terms of this Order, EPA may, after notice to Respondent, institute federally funded response activities and subsequently pursue cost recovery actions available, and/or EPA may issue orders to Respondent pursuant to available statutory authority.

B. EPA reserves its power to bring an action against Respondent pursuant to Section 107 of CERCLA, 42 U.S.C. §9607, for recovery of any costs incurred in oversight of BD's implementation of this Order, and any other costs incurred by EPA in connection with investigative or response activities at the site (to include all costs associated with EPA's performance of the RI/FS or any part thereof, in the event that BD fails to complete the RI/FS in conformance with the requirements of this Order).

C. Notwithstanding any other provision of this Order, EPA reserves the power to take enforcement actions, including actions for monetary penalties, for any violation of law or this Order. Such enforcement actions may include, though need not be limited to, actions pursuant to Section 106(b) of CERCLA, 42 U.S.C. §9606(b), seeking up to \$5000 per day in penalties for any willfu

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violation or any failure or refusal of Respondent to comply with this Order or any portion hereof. Failure to comply with this Order or any portion hereof without sufficient cause also may subject Respondent to an action under Section 107(c)(3) of CERCLA, 42 U.S.C. §9607(c)(3), for punitive damages in the amount of three times the total of all costs incurred by the government as a result of Respondent's failure.

17. General Provisions

- A. This Order shall be effective on the next working day following the date on which it is signed by the Regional Administrator.
- B. All work conducted pursuant to this Order shall be performed in accordance with prevailing professional standards.
- C. All actions performed by Respondent in implementing this Order shall be in compliance with all applicable federal, state, and local laws and regulations, including but not limited to 40 CFR, Part 300. BD shall be responsible for obtaining all necessary permits, licenses and other authorizations.
- D. The Operations Plan, the RI Report and the Draft FS Report, upon approval by EPA, are incorporated into this Order.
- E. Neither the United States Government nor any agency thereof shall be liable for any injuries or damages to persons or property resulting from acts or omissions of Respondent, its officers, directors, employees, agents, servants, receivers, trustees, successors, or assignees, or of any persons, including but not limited to firms, corporations, subsidiaries, contractors or consultants, in carrying out activities pursuant to this Order, nor shall the United States Government or any agency thereof be held out as a party to any contract entered into by Respondent in carrying out activities pursuant to this Order.
- F. This Order shall apply to and be binding upon Respondent and Respondent's successors and assigns.
- G. Nothing contained in this Order shall affect any right, claim, interest, defense, or cause of action of any party hereto with respect to third parties.
- H. As may be directed by EPA, Respondent shall give EPA advance notice of expected activities under this Order.

I. Respondent's activities under this Order shall be performed within the time limits set forth herein unless performance is delayed by events which constitute a force majeure. For purposes of this Order, a force majeure is defined as any event arising from causes beyond Respondent's reasonable control. Financial considerations of Respondent shall not be considered circumstances beyond the control of Respondent. In the event of a force majeure, Respondent shall be obligated to perform the affected activities within a time period which shall not exceed the time period of the delay attributed to the force majeure, provided, however, that no deadline shall be extended beyond a period of time that is reasonably necessary. Respondent shall verbally notify EPA's On-Scene Coordinator as soon as possible following Respondent's awareness that circumstances constituting a force majeure have occurred or are likely to occur. If the On-Scene Coordinator cannot be contacted, BD shall attempt to leave a message at his or her office and shall immediately proceed to notify the EPA Project Officer by phone. In addition, BD shall notify EPA in writing, over the signature of a responsible official of BD, as soon as possible but not later than ten (10) days after Respondent becomes aware that circumstances constituting a force majeure have occurred. Such written notice shall be accompanied by all available pertinent documentation, including but not limited to third-party correspondence, and shall contain the following: 1) a description of the circumstances, and BD's rationale for interpreting such circumstances as being beyond BD's control; 2) the actions (including pertinent dates) that BD has taken and/or plans to take to minimize any delay; and 3) the date by which or the time period within which BD proposes to complete the delayed activities. BD's failure to timely notify EPA as required by this subparagraph shall render the remaining provisions of this subparagraph null and void insofar as they may entitle BD to an extension of time.

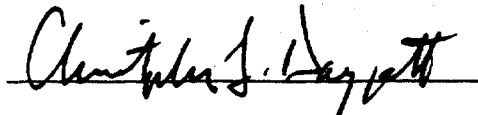
J. BD shall use its best efforts to avoid or minimize any delay or prevention of performance of its obligations under this Order. BD shall provide written notification to EPA of any circumstances which have caused or which BD believes is likely to cause a delay of performance. Such written notice: 1) shall be provided as soon as possible, but not later than ten (10) days after the date when BD knew or should have known of the occurrence of such circumstances; 2) shall be accompanied by all available documentation, including but not limited to third-party correspondence; and 3) shall include a) a description of the circumstances causing or potentially causing the delay; b) the actions (including pertinent dates) that BD has taken and/or plans to take to minimize any delay; and c) the date by which or time period within which BD proposes to complete delayed activities.

K. EPA has developed a Community Relations Plan for maintaining a strong community involvement in the conduct of the RI and FS.

This activity will be a continuation of the community involvement regarding the previous administrative order with BD (see Paragraph 8, above), when EPA met with community leaders and the public. Among the topics discussed at that meeting were the anticipated RI and FS Reports.

L. Respondent's consent to this Order shall not be construed as a waiver of any defenses which BD may wish to raise in any action to enforce the terms of this Order, or in any other proceedings, and nothing contained in this Order shall constitute an admission by BD with respect to any factual or legal matter, including factual matters set forth in the Findings of this Order. However, BD agrees not to contest the authority or jurisdiction of the Regional Administrator to issue this Order, and also agrees not to contest the existence of the statutory prerequisites necessary for the Regional Administrator's issuance of this Order.

U.S. ENVIRONMENTAL PROTECTION AGENCY



Christopher J. Daggett
Regional Administrator
U.S. Environmental Protection Agency
Region II

10/9/84
Date

BECTON DICKINSON PUERTO RICO, INC.



Raymond P. Ohlmuller
Assistant Secretary

September 25, 1984
Date

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