

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of )  
SENATOR ART TORRES ) ORDER NO. WQ 92-02  
for Review of Waste Discharge )  
Requirements Order No. 91-035, )  
Puente Hills Landfill, Issued by the )  
California Regional Water Quality )  
Control Board, Los Angeles Region. )  
Our File No. A-737. )

BY THE BOARD:

On March 4, 1991, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) adopted waste discharge requirements (Order No. 91-035) for County Sanitation Districts of Los Angeles County (CSDLAC). The requirements regulate disposal of incinerator ash at CSDLAC's Puente Hills Landfill (Landfill). Operation of the Landfill itself is covered by waste discharge requirements Order No. 90-046.

On April 3, 1991, the State Water Resources Control Board (State Board) received a petition from Senator Art Torres seeking review of Order No. 91-035. Specifically, Senator Torres asks the State Board to disallow the disposal of incinerator ash at the Landfill.<sup>1</sup>

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<sup>1</sup> Senator Torres also requested the State Board to stay the effect of Order No. 91-035. However, since this Order considers the petition on its merits, the issuance of a stay order is now moot.

## I. BACKGROUND

Untreated incinerator ash is disposed of in the Puente Hills Landfill. The Landfill is a Class III landfill, pursuant to the State Board regulations in Chapter 15.<sup>2</sup> The Landfill is located in the Main San Gabriel River Hydrologic Unit of Southern California.

The ash is generated at two incinerator facilities. The Commerce Refuse-to-Energy Facility (CREF) was developed by the Commerce Refuse-to-Energy Authority (Authority), a joint powers agency of the City of Commerce and CSDLAC. The City of Long Beach (City) operates the Southeast Resource Recovery Facility (SERRF). Both facilities burn municipal garbage to reduce its volume, and to produce energy. The incinerator ash is then disposed of at the Landfill. The CREF facility began operation in 1987, and SERRF started up in 1988.

Beginning in 1988, the Regional Board staff expressed concerns that samples of the incinerator ash from CREF indicated that the ash was hazardous, due to the levels of lead and cadmium in the ash. As will be explained below, the Department of Health Services (Department)<sup>3</sup> stated that, notwithstanding the presence of cadmium, lead, and zinc at levels above regulatory thresholds, it was legally precluded from declaring the incinerator ash a hazardous waste.

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<sup>2</sup> Title 23, California Code of Regulations Sections 2510 and following.

<sup>3</sup> The activities of the Department which are relevant to this matter have recently been transferred to the Department of Toxic Substances Control, within California Environmental Protection Agency. The term "Department" will be used here to refer to both entities.

In March 1989, the Regional Board adopted waste discharge requirements for the Landfill (Order No. 89-032). The Regional Board made findings that, notwithstanding the Department's classification of the ash from CREF and SERRF as nonhazardous, disposal at a Class III landfill, such as Puente Hills Landfill, was not in conformance with water quality objectives. However, citing increases in air pollution which would result from transporting the ash to an alternative disposal site and threats to water quality from the prospect of illegal dumping of trash the Regional Board allowed interim disposal of the ash at the Landfill for one year. During that time, the Authority and the City were required to implement treatment of the ash, which would render it nonhazardous. In Order No. 89-032, the Regional Board required segregation of the ash from other wastes and a daily cover.

In April 1990, the Regional Board adopted waste discharge requirements for the Landfill in Order No. 90-046, which granted an additional year, until March 1991, for disposal of untreated ash. The Regional Board's findings stated that the delay was appropriate because the treatment project had to comply with the California Environmental Quality Act and obtain air quality permits. In June 1990, the Authority and the City informed the Regional Board that each incinerator facility would be developing a pilot study prior to full implementation of treatment.

In March 1991, the Regional Board adopted Order No. 91-035, which allowed the continued disposal of untreated ash

until June 1992. The reason given for the time extension is the need to build treatment facilities at each incinerator.

The major issue before the State Board is whether the disposal of the incinerator ash at the Landfill is appropriate and proper. Senator Torres alleges that the incinerator ash is "highly toxic" and that it poses a threat to ground water quality when disposed of at the Landfill. A related issue, also raised in the petition, is whether the Regional Board's extension of time for treatment to be implemented was appropriate and proper.

## II. CONTENTIONS AND FINDINGS<sup>4</sup>

1. Contention: Senator Torres contends that the incinerator ash from CREF and SERRF is "highly toxic" and that ground water quality is threatened by its presence in a Class III landfill.

Findings: In order to analyze the issues raised by Senator Torres, it is necessary to review the State Board's waste classification and land disposal regulations, and the specific rules that apply to incinerator ash.

### A. Classification of Wastes

In Chapter 15 of its regulations, the State Board has adopted minimum standards for waste disposal to land. Chapter 15 classifies wastes as hazardous, designated, nonhazardous, and inert. It classifies waste management units as Class I,

<sup>4</sup> All other contentions raised in the petition which are not discussed in this order are dismissed. (Tit. 23, Code of California Regulations [CCR] Section 2052; People v. Barry [1987] 194 Cal.App. 3d 158.)

Class II, or Class III. In general, hazardous waste can only be disposed of at Class I waste management units, designated waste must go to Class II (or Class I) waste management units, nonhazardous solid waste is disposed of in Class III (or Class I or II) landfills, and inert waste need not be disposed of in a classified waste management unit.

Sections 2523 and 2524 of Chapter 15 provide that only nonhazardous solid waste and inert waste may be discharged at Class III landfills. Regional Boards may also impose more stringent requirements due to regional and site-specific conditions. Tit. 23, CCR Section 2510. Such requirements can prohibit the discharge of waste by type or location. Water Code Section 13243. Regional Boards also have discretion to permit wastes which are neither nonhazardous nor inert to be discharged at Class III landfills, but only if the discharger establishes that the wastes present a lower risk of water quality degradation than is indicated by their classification. Tit. 23, CCR Section 2520(a)(1).

The determination that a waste is hazardous is made by the Department.<sup>5</sup> If the waste is not hazardous, then the

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<sup>5</sup> Section 2521(a) of Chapter 15 states:

"Hazardous waste is any waste which, under Section 66300 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4 of Title 22 of this code."

The regulations in Title 22 set forth the criteria which the Department follows in determining whether a substance is hazardous.

Regional Board determines whether it is designated, nonhazardous solid waste, or inert waste. Designated waste includes:

"nonhazardous waste which consists of or contains pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of waters of the state." Tit. 23, CCR Section 2522(a).

Nonhazardous solid wastes includes "all putrescible and nonputrescible solid, semi-solid, and liquid wastes," including garbage and ashes:

"provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e., designated waste)." Tit. 23, CCR Section 2523(a).

Ash from both the CREF and SERRF facilities has been routinely analyzed, and levels of cadmium, copper, lead, and zinc have repeatedly exceeded the Soluble Threshold Limit Concentration (STLC) and/or the Total Threshold Limit Concentration (TTLC) established by the Department. These are criteria set forth in Title 22, California Code of Regulations, which the Department uses to determine if a waste is hazardous. Specifically, the record before us contains the following average levels of metals found in leaching solution when the CREF ash was subjected to the Department's Waste Extraction Test (WET): 24.9 parts per million (ppm) for lead and 1.5 ppm for cadmium. The Department has set STLC's for these constituents at 5.0 ppm for lead and 1.0 ppm for cadmium. Thus, the levels of lead and cadmium in the ash would, under normal circumstances, lead the Department to determine that the ash was hazardous.

B. Special Rules for Classification of Incinerator Ash

In this case, the Department has classified the ash from CREF and SERRF as nonhazardous based upon former Health and Safety Code Section 25143.5, which restricted the Department's ability to classify the ash as hazardous. Specifically, subsection (d) of Section 25143.5 severely restricted the Department's ability to reclassify the ash as hazardous, based on actual testing, if the Department originally classified the ash as nonhazardous, based on the proponent's description or on laboratory tests. The relevant portions of Section 25143.5 were recently reenacted as Section 25143.4, with a provision added that the Department may, without restriction, reclassify the ash as hazardous after September 30, 1992. In order to understand the application of Section 25143.4 (and former Section 25143.5), it is necessary to examine the history of the legislation.

In the period between 1982 and 1984, prior to construction of CREF and SERRF, the Authority and the City applied to the Department to have the ash classified as nonhazardous waste. The City provided a description of the waste to be incinerated, and the Authority provided laboratory combustion tests of wastes. Based on the City's description and the Authority's laboratory tests, the Department classified the ash as nonhazardous. Both classifications were completed by 1984.

In 1984, Section 25143.5 was added to the Health and Safety Code. Of import in this matter is subsection (d):

"The classifications of fly ash, bottom ash, and flue gas emission control residues as nonhazardous,

made by the department before January 1, 1985, for the ash or residue generated by an individual solid waste facility which will convert solid waste into energy shall not be modified or repealed by the department unless the department determines all of the following:

"(1) New data reveals that there has been a significant change in the solid waste entering the combustion process, in the combustion process itself, or in the management of the ash or residue.

"(2) The change specified in paragraph (1) causes the facility to produce waste which is hazardous waste, as defined in Section 25117, as determined by the testing of a representative sample of the ash or residue pursuant to criteria adopted by the department.

"(3) The hazard caused by the change specified in paragraph (1) or the hazardous waste produced by the facility is not adequately regulated by any other state or local agency with jurisdiction over the facility which generates the ash or residue.

"This subdivision applies to determinations made by the department for individual solid waste conversion facilities, including, but not limited to, those projects which will be constructed or will serve the ... Cities of ... Long Beach ... and Commerce."

Subsection (d) of Section 25143.5 essentially prohibits the Department from changing the classification of the ash from nonhazardous to hazardous unless there has been a significant change in the waste which is combusted, the manner of combustion, or the management of the ash or residue. Section 25143.5(d)(1). In a letter from the Department, it is stated that although the ash contains cadmium, lead, and zinc at levels above regulatory thresholds for hazardous wastes, the Department cannot make the findings required in Section 25143.5(d) to reclassify the waste.<sup>6</sup>

<sup>6</sup> Letter from Department to City of Duarte, March 13, 1989.

In October 1991, Senate Bill 50, authored by Senator Torres, was signed into law. The new statute adds Section 25143.4 to the Health and Safety Code. Senate Bill 50 moves the above-quoted language from Section 25143.5(d) to Section 25143.4 and adds the following:

"This section shall become inoperative on September 30, 1992, and, as of January 1, 1993, is repealed, unless a later enacted statute, which becomes effective on or before January 1, 1993, deletes or extends the dates on which it becomes inoperative and is repealed."

Thus, following September 30, 1992, the Department will be free to reclassify the ash as hazardous, without statutory restriction. However, as was mentioned above, the City and the Authority are required to have implemented treatment of the ash prior to that time. The treatment is intended to result in the treated product not exceeding hazardous levels.

#### C. The Regional Board's Role in Classifying Incinerator Ash

It is apparent from the record before us that the ash from CREF and SERRF has been classified as a nonhazardous waste by the Department, but that the classification is not based on the traditional regulatory requirements. Therefore, we must address whether the Regional Board should have classified the ash as a designated waste or should otherwise have provided more stringent requirements in order to protect water quality.

As was stated above, designated waste includes:

"nonhazardous waste which consists of or contains pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of waters of the state." Tit. 23, CCR Section 2522(a).

Because the ash generated at CREF and SERRF exhibits characteristics of toxicity, the continued disposal of untreated ash poses a threat to water quality. The Landfill is built to classifications as a Class III landfill, and is not constructed to contain toxic pollutants. Therefore, the ash should, at a minimum be treated as a designated waste, and should not be discharged to a Class III landfill.

Designated waste is generally restricted to disposal at a Class II landfill. Tit. 23, CCR Section 2522(b). Disposal of designated waste at a Class III landfill may be allowed only if the discharger establishes that the waste poses a lower risk of water quality degradation than is indicated by the classification. Tit. 23, CCR Section 2520(a)(1). In this case, the Regional Board found that the continued disposal of untreated ash in the Class III landfill does pose a threat to water quality. Given the characteristics of the ash, the Regional Board should have classified the untreated ash as designated.

In the responses submitted by the Regional Board, the Authority, and the City, it is argued that the Regional Board was prevented from determining that the ash was other than nonhazardous, as was the Department. These responses contend that former Section 25143.5 applies not only to the Department, but also to the Regional Board. However, former Section 25143.5 on its face restrains only the Department from reclassifying the

ash as nonhazardous.<sup>7</sup> Moreover, the legislative history of this section clarifies that it does not apply to the Regional Board.

The original versions of the bill which added Section 25143.5 (SB 2292) would have also amended the Water Code to prevent the State Board from imposing any conditions or requirements for disposal of ash more restrictive than those imposed by the Department. After the State Board protested the language which would have restricted its authority to regulate disposal of the ash,<sup>8</sup> the final version deleted any reference to the State Board or Regional Boards. Given this legislative history, it is clear there was no intent to bind the Regional Boards to the Department's determination that the ash was nonhazardous.

The Regional Board also claims that it was required to allow disposal of the ash at a Class III landfill by the following provision in Chapter 15:

"Incinerator ash may be discharged at a Class III landfill unless [the Department] determines that the waste must be managed as hazardous waste." Tit. 23, CCR Section 2523(d).

We do not read this provision as directive, but rather as permissive. In other words, as long as the ash has not been classified as hazardous by the Department, the Regional Board may permit disposal at a Class III landfill.<sup>9</sup>

<sup>7</sup> Current Section 25143.4 makes no change in this language.

<sup>8</sup> See, Bill Analysis for SB 2292, submitted by Secretary of Environmental Affairs, April 24, 1984.

<sup>9</sup> Generally the term "may" is interpreted as permissive or conferring discretion. 58 Cal.Jur. III, at pp. 544-545.

If Section 2523(d) were to be read as mandatory (as providing a "right" for dischargers to dispose of ash in Class III landfills), it would be inconsistent with other provisions in the Water Code and Chapter 15. Water Code Section 13263(g) states unequivocally: "All discharges of waste into waters of the state are privileges, not rights." Section 2510(a) of Chapter 15 provides that the Regional Board may adopt more stringent requirements than the minimum standards set forth in the regulations: "Regional boards may impose more stringent requirements to accommodate regional and site-specific conditions." We note that in the Response to Comments filed in adoption of Chapter 15, the following statement appears in response to the comment that ash should be allowed to go to a Class III landfill:

"Incinerator ash must go to a Class I facility if it is determined by [the Department] that the ash must be managed according to [the Department's regulations]. If the ash does not need to be managed as a hazardous waste, the ash may be discharged with compatible waste at a Class II landfill or waste pile, or to a Class III landfill."

In summary, we read Section 2523(d) of Chapter 15 to mean that the Regional Board had the discretion to allow discharge of the incinerator ash at the Landfill, because it was not classified as hazardous by the Department. On the other hand, the Regional Board's duty to establish requirements which protect water quality objectives (Water Code Section 13263) is paramount and is not abrogated by Section 2523(d). Based on the constituents which are found in the incinerator ash, and the requirements of the Water Code and Chapter 15, we find that the

continued disposal of the untreated ash in the Class III landfill is not appropriate. We turn now to a discussion of the interim measures which the Regional Board has taken to isolate the ash, and plans by the City and the Authority to treat the ash.

2. Contention: Senator Torres claims that it was improper for the Regional Board to have granted a second extension for treatment of the ash in Order No. 91-035, and that the Regional Board has not adequately set and enforced time tables to restrict disposal of the untreated ash.

Finding: The various waste discharge requirements adopted by the Regional Board acknowledge that the continued disposal of untreated ash presents a threat to water quality. The response of the Regional Board has been to establish time tables in the requirements for completion of a treatment process. The goal of the process is to treat the waste so that it will not exhibit hazardous characteristics. The requirements we are reviewing constitute the third deadline established by the Regional Board, and require completion of the treatment technology by June 30, 1992. In addition, the amendments to the requirements have provided that the ash must be isolated from the other waste discharged to the Landfill.

Both the Authority and the City are currently developing ash treatment facilities. The Authority has completed construction, and is engaged in start up. The City has represented to the State Board that its treatment facility will be on-line by September 30, 1992.

We are also mindful of the need to find waste disposal locations in the Los Angeles basin, and that the use of incineration will reduce the volume of solid waste. We are aware that there are no landfills which have been classified as Class II in the area, and that transporting the ash a long distance could also pose environmental risks.

In light of these solid waste policy issues, we requested the California Integrated Waste Management Board (IWMB) to comment on this petition. IWMB states that "it would be imprudent for the [State Board] to disallow the current practice of disposing of ash at the Puente Hills Landfill."<sup>10</sup> Specifically, IWMB states that disposal in a Class I landfill would be imprudent, since such facilities should be reserved for wastes posing a greater hazard.<sup>11</sup> Further, IWMB staff have been involved in the treatment proposal and believe that is the most practical method to resolve the ash disposal problem.

In the requirements, the Regional Board does require isolation of the ash, and the Landfill has engineered barriers. IWMB has commented that these modifications are adequate to protect water quality, and has cited the Stanislaus Waste Energy Company (SWEC) facility as an example of an adequate ash disposal facility which does not meet Class I standards. We note, however, that the SWEC facility is a Class II facility, which is

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<sup>10</sup> Memorandum from Ralph E. Chandler to Walt Pettit, dated October 1, 1991.

<sup>11</sup> The ash is derived from household garbage, and its toxicity presumably is caused by concentration which occurs in the incineration process. Many wastes disposed of at Class I facilities have higher toxicity levels.

required where designated waste is disposed. Notwithstanding the "extra" requirements which the Regional Board has placed upon the disposal of ash at Puente Hills, the Landfill is classified as Class III. The "isolation" of the ash has been accomplished both by placing ash in a separate, newer portion of the Landfill (Canyon 9) and by vertical segregation in the older part of the Landfill.

Given this advice from IWMB, we are reluctant to prohibit immediately the continuing disposal of the ash from CREF and SERRF at the Puente Hills Landfill. We agree with IWMB that the Class III landfill is appropriate for the disposal of treated ash. It appears impracticable to redirect the untreated ash to another site for the interim period. However, we are not convinced that adequate progress has been made in the last three years, and find that the Regional Board should not continue to grant extensions in the waste discharge requirements for the implementation of treatment. Accordingly, under the authority of Water Code Section 13300 and consistent with representations of the Authority and the City that they will be able to meet a September 30, 1992 deadline for treatment of the ash, a time schedule for compliance with the deadline should be established.<sup>12</sup>

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<sup>12</sup> We note that compliance with a September 30 time schedule is also consistent with newly-enacted Health and Safety Code Section 25143.4, which deletes the restrictions imposed on the Department against classifying the ash as hazardous as of September 30, 1992. Based on the representations made by the Authority and the City, they should have a treated product which the Department could classify as nonhazardous by September 30.

If this time schedule will not be met, the Regional Board must take appropriate enforcement action, including issuance of a cease and desist order, to implement its prohibition against disposal of untreated ash. The waste discharge requirements should not be amended to grant another extension.

Canyon 9 of the Landfill has engineered features that go beyond the minimum requirements of a Class III landfill. It has a sub-drain, a one-foot clay liner covered by an 80-mil high-density polyethylene synthetic liner, and a one-foot gravel leachate collection and removal system. Canyon 9 is not contiguous with the old Landfill. While the requirements state that ash has been disposed of in Canyon 9, the ash is currently discharged to the old Landfill. Therefore, in order to provide further protection to water quality pending the completion of the treatment process, the requirements will be amended to restrict disposal of ash to Canyon 9 and to segregate it to the maximum extent possible.

3. Contention: Senator Torres contends that he did not receive notice of the Regional Board's action in adopting the amended requirements.

Finding: We have reviewed the record and found that Senator Torres was on the mailing list for the adoption of requirements, and that the Regional Board complied with all statutory requirements regarding proper notice.

### III. CONCLUSIONS

After review of the record and consideration of the contentions of the petitioner, and for the reasons discussed above, we conclude:

1. The continued disposal of untreated incinerator ash at the Class III Puente Hills Landfill beyond September 30, 1992 should be prohibited.
2. A time schedule that requires compliance with the prohibition against disposal of untreated ash by September 30, 1992 should be established, consistent with the representation made by the Authority and the City.
3. If the time schedule is not met, the Regional Board shall adopt a cease and desist order enforcing the deadline.
4. The waste discharge requirements shall be amended to limit disposal of untreated ash to Canyon 9 of the Landfill.

### IV. ORDER

IT IS HEREBY ORDERED that

1. The prohibition against the discharge of untreated ash at the Landfill shall be met by September 30, 1992.
2. If the September 30, 1992 time schedule for ash treatment is not met, the Regional Board is directed to issue a cease and desist order requiring compliance.
3. Order No. 91-035 is amended to add the following provision: "Disposal of untreated incinerator ash is permitted

only in Canyon 9 of Puente Hills Landfill and shall be segregated to the maximum extent possible."

IT IS FURTHER ORDERED that in all other respects the petition is denied.

CERTIFICATION

The undersigned, Administrative Assistant to the State Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on January 23, 1992.

AYE:            W. Don Maughan  
                  Edwin H. Finster  
                  Eliseo M. Samaniego  
                  John Caffrey

NO:            None

ABSENT:        None

ABSTAIN:       None

Maureen Marché  
Maureen Marché  
Administrative Assistant  
to the Board