California Regional Water Quality Control Board
Santa Ana Region

January 22, 2004

ITEM: 6

SUBJECT: Waste Discharge Requirements for Glen Ivy Hot Springs, Inc., Temescal Canyon, Riverside County - Order No. R8-2004-0003, NPDES No. CA8000023

DISCUSSION:

Glen Ivy Hot Springs, Inc. (hereinafter, discharger) operates the Glen Ivy Hot Springs Spa, a resort located at 25000 Glen Ivy Road in an unincorporated area of Riverside County south of Corona (see attached map). The discharger leases 17.25 acres of the 80 acres owned at this site by the Emissaries of Divine Light (EDL). The discharger has submitted plans to expand the resort within the current boundaries of the lease ("footprint"), under a substantial conformance review by Riverside County planners.

Current discharges from the facility are regulated under Order No. 98-87, NPDES No. CA8000023 adopted by the Regional Board on August 28, 1998. Order No. 98-87 regulates discharges of untreated geothermal wastewater from recreational/therapeutic pools at the facility to Coldwater Canyon Creek. Order No. 98-87 expired on September 1, 2003. On September 30, 2003, the discharger submitted a complete application to renew the waste discharge requirements.

The resort is situated on the western side of Temescal Canyon adjacent to the Santa Ana Mountains and Coldwater Canyon. Coldwater Canyon Creek emanates from this drainage and curves along the southern and eastern periphery of the property. A deep geothermal well located adjacent to Coldwater Canyon supplies hot mineral water that flows through the resort's five existing mineral baths and hot mud bath. Natural clay is added to the hot mud bath ("Club Mud"), and customers eventually wash it off, thereby artificially placing colloidal solids into suspension. An existing, separate non-geothermal well installed in a shallow aquifer provides domestic supply that fills the resort's other water features.

The "flow-through" mineral baths and mud bath have continuous discharges. The wastewater from these baths is discharged to either of two primary discharge pipelines that cross the facility. Existing and proposed features that have or will have infrequent discharges associated with maintenance include 17 spas and jacuzzis, one large swimming pool (56,878 gallons), five medium-sized pools, a circulating "river" feature, and six fountains. The resort's largest swimming pool, smaller pools, and spas are self- contained, not flow-through, and they are all chlorinated. While the pools themselves are rarely drained, there are intermittent filter backwash discharges, with potential chlorine residual. This wastewater is also discharged to the two pipelines. The pipelines empty into a concrete box culvert, where the flows consolidate and enter a ditch. The consolidated flow travels along the ditch and enters Coldwater Canyon Creek at the facility's northeast corner (latitude N33°01'10", longitude W117°29'31"). Approximately 80,000 gallons are currently discharged to the Creek. When the creekbed is dry, the flows tend to infiltrate, but in wet weather, the flows commingle with mountain runoff.

The discharger proposes construction of a second geothermal well to supply four additional mineral baths. The discharger also proposes to construct a basin or other structure beside the creekbed to retain, filter, or equalize the wastewater prior to discharge for the purpose of lowering the concentrations of minerals and other constituents. By the end of this expansion phase, up to approximately 85,000 gallons per day of "flow-through" water from the hot mud bath and mineral baths, pool-filter backwash, and various maintenance releases from pools and fountains are projected for discharge to Coldwater Canyon Creek and onsite land applications. Onsite land applications include irrigation of landscaping around the east and north sides of the parking lot.

In addition to these discharges, in the northwestern portion of the site, a drainage line currently carries deck wash to open space for infiltration.

Coldwater Canyon Creek is tributary to Temescal Creek, Reach 2, and to the Coldwater Groundwater Subbasin (Upper Temescal III). The beneficial uses of Coldwater Canyon Creek and Temescal Creek, Reach 2, include municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, and wildlife habitat. The beneficial uses of the Coldwater Groundwater Subbasin are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

A reasonable potential analysis of monitoring data submitted for Order No. 98-87 indicates that the surface water quality objective and effluent limit for pH has been exceeded frequently by the discharge from the facility. Limits for temperature, total suspended solids, and residual chlorine have been rarely exceeded. During the previous permit cycle, at the request of local water districts that extract groundwater in the area, the total dissolved solids limit for the discharger was lowered from the 600 mg/l allowable under the Basin Plan (350 mg/l plus a reasonable use increment of 250 mg/l) to a performance-based limit of 500 mg/l. This limit has not been exceeded and is also included in tentative Order No. R8-2004-0003. A test for priority pollutants has indicated no pollutants at elevated levels, including metals. The proposed waste discharge requirements should be adequate to protect the beneficial uses of the receiving waters.

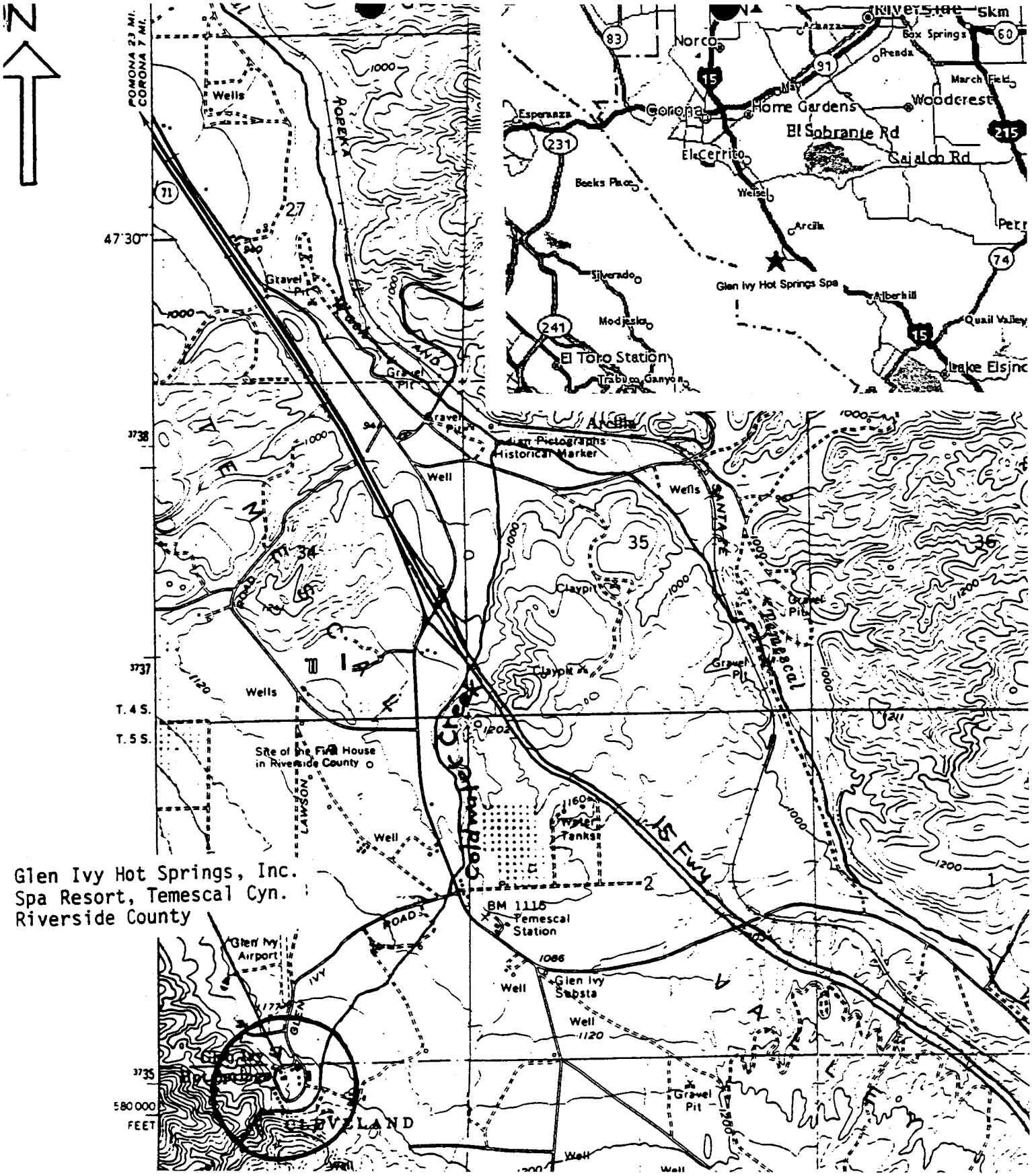
RECOMMENDATION:

Adopt Order No. R8-2004-0003, NPDES No. CA8000023, as presented.

Comments were solicited from the following agencies:
U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) - Doug Eberhardt
U.S. Fish and Wildlife Service, Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
State Water Resources Control Board, DWQ – Jim Maughan
State Department of Water Resources, Glendale

State Department of Health Services, San Diego – Steve Williams
State Department of Fish and Game, Los Alamitos
Riverside County Flood Control – Mark Wills
Riverside County Department of Environmental Health – Greg Dellenbach
Riverside County Department of Planning – Grace Williams/Charles Ray
City of Corona, Water Utilities Director
Santa Ana River Discharger Association
Natural Resources Defense Council - David Beckman
Lawyers for Clean Water C/c San Francisco Baykeeper
Glen Ivy Hot Springs, Inc. - John Gray

Attachment
Staff Report
Order No. R8-2004-0003, NPDES No. CA8000023
Glen Ivy Hot Springs, Inc.



Glen Ivy Hot Springs, Inc.
Spa Resort, Temescal Cyn.
Riverside County

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2004-0003
NPDES No. CA8000023

Waste Discharge Requirements
for

Glen Ivy Hot Springs, Inc.
Temescal Canyon, Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. Glen Ivy Hot Springs, Inc. (hereinafter discharger) operates the Glen Ivy Hot Springs Spa, a 17.25-acre resort located at 25000 Glen Ivy Road, in an unincorporated area of Riverside County south of Corona. The resort is situated on the western side of Temescal Canyon adjacent to the Santa Ana Mountains, Coldwater Canyon, and Coldwater Canyon Creek. The discharger leases the land from the Emissaries of Divine Light (EDL), who owns 80 total acres at the site. The discharger has submitted plans to expand the resort within the current boundaries of the lease.

2. On September 30, 2003, the discharger submitted a complete application to renew waste discharge requirements for the continued discharge of untreated wastewater from the resort's recreational pools and water features to Coldwater Canyon Creek. These discharges were regulated under Order No. 98-87, NPDES No. CA8000023, adopted by the Board on August 28, 1998. Order No. 98-87 expired on September 1, 2003.

3. A deep geothermal well, along with a water supply well installed in a more shallow aquifer, provide recreational and drinking water to the resort. Geothermal water (hot mineral water) is extracted and flows through the resort's hot mud bath and five mineral baths and exits the baths to either of two pipelines that cross the facility. Construction of a second geothermal well and four more baths is proposed, with all ten baths contributing the majority of the facility's discharge volume. By the end of this expansion phase, up to approximately 85,000 gallons per day of "flow-through" water from the mud bath and mineral baths, pool-filter backwash, and various maintenance releases from pools and fountains are projected for discharge to Coldwater Canyon Creek and onsite land applications.

4. A portion of the wastewater will be diverted through a proposed pipe to irrigate site landscaping around the east and north sides of the parking lot. Furthermore, in the northwestern portion of the site, a drainage line currently carries deck wash to open space for infiltration. This Order permits these discharges to land.

5. The discharge outfall is located at the facility's northeast corner at latitude N33°01'10", longitude W117°29'31".

TENTATIVE

6. A Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan identifies water quality objectives and beneficial uses for waters in the Santa Ana Region. The requirements contained in this Order are necessary to implement the Basin Plan.

7. The discharge is to Coldwater Canyon Creek, which is tributary to Temescal Creek, Reach 2. The beneficial uses of these streams include:

   a. Municipal and domestic supply,
   b. Agricultural supply,
   c. Industrial service supply,
   d. Groundwater recharge,
   e. Water contact recreation,
   f. Non-contact water recreation,
   g. Wildlife habitat, and
   h. Warm freshwater habitat.

8. The facility and discharge overlie the Coldwater Groundwater Subbasin, the beneficial uses of which include:

   a. Municipal and domestic supply,
   b. Agricultural supply,
   c. Industrial service supply, and
   d. Industrial process supply.

9. Effluent limitations and new source performance standards established pursuant to Section 301, 302, 303(d), 304, 306, and 307of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.

10. In accordance with Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

11. The Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, and finds this discharge is consistent with those provisions.

12. The Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Divisions 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and the regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Specifications

1. The discharge of wastes containing constituent concentrations in excess of the following limits is prohibited:

CONSTITUENT	MAXIMUM DAILY CONCENTRATION LIMIT
Total Suspended Solids	75 mg/l
Total Dissolved Solids	500 mg/l
Chlorine Residual	0.1 mg/l

2. The discharge of any substance in concentrations toxic to animal or plant life in the affected receiving water is prohibited.

3. The pH of the discharge to Coldwater Canyon Creek shall at all times be within the range of 6.5 to 8.5 pH units.

B. Receiving Water Limitations

1. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Board or State Board, as required by the Clean Water Act and regulations adopted thereunder.

2. The discharge shall not cause any of the following:

   a. Coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses.

   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

   c. An increase in the amounts of suspended or settleable solids in the receiving waters which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

d. Taste or odor producing substances in the receiving waters at concentrations which cause a nuisance or adversely affect beneficial uses.

e. The presence of radioactive materials in the receiving waters in concentrations which are deleterious to human, plant or animal life.

f. The depletion of the dissolved oxygen concentration below 5.0 mg/l.

g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.

C. Provisions

1. This Order shall become effective on the date of adoption. This Order shall also serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the CWA, or amendments thereto, that shall become effective 10 days after the date of adoption, provided the Regional Administrator of the EPA has no objection. If the Regional Administrator objects to its issuance, this Order shall not serve as an NPDES permit until such objection is withdrawn.

2. Neither the treatment nor the discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

3. This Order expires on January 1, 2009 and the discharger must file a Report of Waste Discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations not later than 180 days in advance of such expiration date. The Report of Waste Discharge shall serve as the application for issuance of new waste discharge requirements.

4. Order No. 98-87 is hereby rescinded.

5. The discharger shall comply with Monitoring and Reporting Program No. R8-2004-0003. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order, and may include an increase in the number of parameters to be monitored, the frequency of the monitoring, or the number and size of samples to be collected. Any increase in the number of parameters to be monitored, the frequency of the monitoring, or the number and size of samples to be collected may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.

6. The discharger must comply with all of the requirements of this Order. Any violation of this Order constitutes a violation of the California Water Code and may constitute a violation of the CWA and its regulations, and is grounds for enforcement action, termination of this Order, revocation and re-issuance of this Order, denial of an application for re-issuance of this Order; or a combination thereof.

7. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge. The discharger shall give advance notice to the Board of any planned changes in the permitted facility or activity that may result in noncompliance with these waste discharge requirements.

8. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

9. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

10. Noncompliance Reporting

    a. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided to the Executive Officer (909-782-4130) and the Office of Emergency Services (1-800-852-7550), if appropriate, as soon as the discharger becomes aware of the circumstances. A written report shall be submitted within 5 days and shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
    b. Any violation of a maximum daily discharge limitation for any of the pollutants listed in this Order shall be included as information that must be reported to the Board within 24 hours.
    c. The Regional Board may waive the above written report on a case-by-case basis.
    d. If noncompliance is being reported, the reasons for such noncompliance shall be stated plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when compliance has been achieved.

11. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.

12. The provisions and requirements of this Order do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

13. This Order does not convey any property rights of any sort, or any exclusive privilege.

14. This Order is not transferable to any person except after notice to and approval by the Board. The Board may require modification, or revocation and reissuance, of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act.

15. In the event of any change in control of the waste discharge facility presently controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Board.

16. It shall not be a defense for a discharger in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.

17. The Board, EPA, and other authorized representatives shall be allowed:

    a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
    b. Access to copy any records that are kept under the conditions of this Order;
    c. To inspect any facility, equipment (including for monitoring and control), practices, or operations regulated or required under this Order; and
    d. To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act.

18. Except for data determined to be confidential under Section 308 of the Clean Water Act, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of the EPA. As required by the Clean Water Act, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Section 13387 of the California Water Code.

D. Permit Reopening, Revision, Revocation, and Reissuance

1. This Order may be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.

2. This Order may be modified, revoked and reissued, or terminated for cause. No permit condition will be stayed by the filing of a request by the discharger for modification, revocation and reissuance, or termination of this Order, or by a notification of anticipated noncompliance or planned changes.
3. This Order may be reopened to include effluent limitations for pollutants determined to be present in significant amounts in the discharge through any monitoring program.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on January 22, 2004.

_____
Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2004-0003
for
Glen Ivy Hot Springs, Inc.
Temescal Canyon, Riverside County

A. Monitoring Guidelines

Monitoring shall be in accordance with the following:

1. All sampling, sample preservation, and analysis shall be performed in accordance with the most recent edition of *"Standard Methods for the Examination of Water and Wastewater"* (American Public Health Association).

2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (latest edition) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this monitoring and reporting program (M&RP). In addition, the Regional Board and/or EPA, at their discretion, may specify test methods which are more sensitive than those specified in 40 CFR 136. 40 CFR 136

3. Chemical and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or the EPA, or at laboratories approved by the Executive Officer of the Regional Board.

4. All analytical data shall be reported with method detection limits (MDLs) and with identification of either practical quantitation levels (PQLs) or limits of quantitation (LOQs).

5. For those priority pollutants without effluent limitations, the discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999). In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[1]) is below the minimum level specified in Attachment "A" and the discharger cannot achieve an MDL value for that pollutant below the ML value, the discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with quarterly monitoring reports.

TENTATIVE

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1 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

6. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for the analysis of spiked samples. When requested by the Board or the EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study and must have a success rate equal to or greater than 80%.

7. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. The flow measurement system shall be calibrated at least once per year, or even more frequently, to ensure continued accuracy.

8. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Effluent samples shall be collected downstream of the last addition of waste to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters.

9. Whenever the discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

10. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Executive Officer at any time. Records of monitoring information shall include:

    a. The date, exact place, and time of sampling or measurements;

    b. The individual(s) who performed the sampling, and/or measurements;

    c. The date(s) analyses were performed;

    d. The laboratory which performed the analyses;

    e. The individual(s) who performed the analyses;

    f. The analytical techniques or methods used, including any modification to those methods;

    g. All sampling and analytical results, including:

        1) units of measurement used;
        2) minimum reporting limit for the analysis (minimum level, practical quantitation level (PQL));
        3) results less than the reporting limit but above the method detection limit (MDL);
        4) data qualifiers and a description of the qualifiers;
        5) quality control test results (and a written copy of the laboratory quality assurance plan);

6) dilution factors, if used; and
7) sample matrix type; and

h. All monitoring equipment calibration and maintenance records;

i. All original strip charts from continuous monitoring devices;

j. All data used to complete the application for this Order; and,

k. Copies of all reports required by this Order.

l. Electronic data and information generated by the Supervisory Control And Data Acquisition (SCADA) System.

11. Annual samples shall be collected during dry-weather flows in January.

12. Quarterly sampling shall be collected during dry-weather flow in January, April, July, and October. Stormwater samples shall be collected during wet-weather flow in December or January, with another set of samples in March or April.

B. Effluent Monitoring

1. The following shall be the monitoring program for this discharge:

Constituent	Sample type	Units	Minimum Frequency of Sampling &Analysis
Flow (see B.2., below)	Estimate	gpd	Quarterly
Total Suspended Solids	Grab	mg/l	Quarterly
Total Dissolved Solids	"	"	"
Residual Chlorine	"	"	"
Priority Pollutant List (Attachment B)	"	ug/l	Once in year 2004 and once in year 2008 (see B.3., below)

2. The discharger shall record in a permanent bound log the estimated or measured flows of pool water along each wastestream (mineral baths, mud bath, etc.). A discussion as to how flow was determined shall also be recorded. Record in the log the date of each filter backwash and pool/pond decantation.

3. The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant[2] in 40 CFR 131.38[3]) shall be accelerated to quarterly for one year following detection. To return to the monitoring frequency specified, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

C. Reporting

Reporting shall be in accordance with the following:

1. All reports shall be arranged in a tabular format to clearly show compliance or noncompliance with each discharge limitation.

2. From the permanent log discussed in B.2, above, indicate dates of filter backwashes and such individualized discharges cleanouts/decantations of pools or other water features.

3. The discharger shall send a copy of each monitoring report in the appropriate format to:

California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

4. Except for data determined to be confidential under Section 308 of the Clean Water Act (CWA), all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of the EPA. As required by the CWA, effluent data shall not be considered confidential.

5. Monitoring reports shall be submitted, for the previous quarterly monitoring, by the 30th day of April, July, October, and January. The reports shall include:

   a. The results of all effluent chemical analyses for the previous three months, and priority pollutant analyses whenever applicable,

   b. Reporting derived from the log discussed in Section B.2., above,

   c. For every item of monitoring data where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

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[2] *For those priority pollutants without specified criteria values, accelerated monitoring is not required.*

[3] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

6. All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted under penalty of perjury.

Ordered by _____

Gerard J. Thibeault
Executive Officer

January 22, 2004

MINIMUM LEVELS IN PPB (µg/l)

Table 2a - VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in Attachment "A" that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in this Attachment "A".

ML Usage: The ML value in Attachment "A" represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.

Note: chemical names in parenthesis and italicized is another name for the constituent.

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1 *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2b – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3' Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

Table 2b - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 2c – INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGF AA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

2 *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

3 *Phenol by colorimetric technique has a factor of 1*

4 *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2d - PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

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5 *The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.*

EPA PRIORITY POLLUTANT LIST

Metals		Acid Extractibles		Base/Neutral Extractibles (continuation)	
1.	Antimony	45.	2-Chlorophenol	91.	Hexachloroethane
2.	Arsenic	46.	2,4-Dichlorophenol	92.	Indeno (1,2,3-cd) Pyrene
3.	Beryllium	47.	2,4-Dimethylphenol	93.	Isophorone
4.	Cadmium	48.	2-Methyl-4,6-Dinitrophenol	94.	Naphthalene
5a.	Chromium (III)	49.	2,4-Dinitrophenol	95.	Nitrobenzene
5b.	Chromium (VI)	50.	2-Nitrophenol	96.	N-Nitrosodimethylamine
6.	Copper	51.	4-Nitrophenol	97.	N-Nitrosodi-N-Propylamine
7.	Lead	52.	3-Methyl-4-Chlorophenol	98.	N-Nitrosodiphenylamine
8.	Mercury	53.	Pentachlorophenol	99.	Phenanthrene
9.	Nickel	54.	Phenol	100.	Pyrene
10.	Selenium	55.	2, 4, 6 – Trichlorophenol	101.	1,2,4-Trichlorobenzene
11.	Silver	**Base/Neutral Extractibles**		**Pesticides**	
12.	Thallium	56.	Acenaphthene	102.	Aldrin
13.	Zinc	57.	Acenaphthylene	103.	Alpha BHC
Miscellaneous		58.	Anthracene	104.	Beta BHC
14.	Cyanide	59.	Benzidine	105.	Delta BHC
15.	Asbestos (not required unless requested)	60.	Benzo (a) Anthracene	106.	Gamma BHC
16.	2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61.	Benzo (a) Pyrene	107.	Chlordane
Volatile Organics		62.	Benzo (b) Fluoranthene	108.	4, 4' - DDT
17.	Acrolein	63.	Benzo (g,h,i) Perylene	109.	4, 4' - DDE
18.	Acrylonitrile	64.	Benzo (k) Fluoranthene	110.	4, 4' - DDD
19.	Benzene	65.	Bis (2-Chloroethoxy) Methane	111.	Dieldrin
20.	Bromoform	66.	Bis (2-Chloroethyl) Ether	112.	Alpha Endosulfan
21.	Carbon Tetrachloride	67.	Bis (2-Chloroisopropyl) Ether	113.	Beta Endosulfan
22.	Chlorobenzene	68.	Bis (2-Ethylhexyl) Phthalate	114.	Endosulfan Sulfate
23.	Chlorodibromomethane	69.	4-Bromophenyl Phenyl Ether	115.	Endrin
24.	Chloroethane	70.	Butylbenzyl Phthalate	116.	Endrin Aldehyde
25.	2-Chloroethyl Vinyl Ether	71.	2-Chloronaphthalene	117.	Heptachlor
26.	Chloroform	72.	4-Chlorophenyl Phenyl Ether	118.	Heptachlor Epoxide
27.	Dichlorobromomethane	73.	Chrysene	119.	PCB 1016
28.	1,1-Dichloroethane	74.	Dibenzo (a,h) Anthracene	120.	PCB 1221
29.	1,2-Dichloroethane	75.	1,2-Dichlorobenzene	121.	PCB 1232
30.	1,1-Dichloroethylene	76.	1,3-Dichlorobenzene	122.	PCB 1242
31.	1,2-Dichloropropane	77.	1,4-Dichlorobenzene	123.	PCB 1248
32.	1,3-Dichloropropylene	78.	3,3'-Dichlorobenzidine	124.	PCB 1254
33.	Ethylbenzene	79.	Diethyl Phthalate	125.	PCB 1260
34.	Methyl Bromide	80.	Dimethyl Phthalate	126.	Toxaphene
35.	Methyl Chloride	81.	Di-n-Butyl Phthalate		
36.	Methylene Chloride	82.	2,4-Dinitrotoluene		
37.	1,1,2,2-Tetrachloroethane	83.	2-6-Dinitrotoluene		
38.	Tetrachloroethylene	84.	Di-n-Octyl Phthalate		
39.	Toluene	85.	1,2-Dipenylhydrazine		
40.	1,2-Trans-Dichloroethylene	86.	Fluoranthene		
41.	1,1,1-Trichloroethane	87.	Fluorene		
42.	1,1,2-Trichloroethane	88.	Hexachlorobenzene		
43.	Trichloroethylene	89.	Hexachlorobutadiene		
44.	Vinyl Chloride	90.	Hexachlorocyclopentadiene	Revised: 7/7/2000	