



RICHARD H. BRYAN  
Governor

STATE OF NEVADA

PETER G. MORROS, P.E.  
State Engineer

ROLAND D. WESTERGARD, P.E.  
Director



G. W. "BILL" QUINN, P.E.  
Chief Engineer

SOUTHERN NEVADA BRANCH OFFICE  
(702) 486-7052

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES  
SOUTHERN NEVADA BRANCH OFFICE  
Mailroom Complex  
Las Vegas, Nevada 89158

2 wells drilled  
logst 32980  
+ 32981

May 5, 1988

Mr. Robert H. Miller  
The Mark Group  
2300 Paseo Del Prado, Suite D-108  
Las Vegas, Nevada 89102

RE: Waiver for Construction of 6 Monitor Wells  
NW 1/4 NE 1/4 Section 29, T.21S., R.62E., M.D.B.&M.

Dear Mr. Miller:

Under the provisions of Part 15 of the Regulations for Drilling Water Wells as adopted under Chapter 534 of the Nevada Administrative Code, and for good cause shown, authorization is hereby granted to complete the subject wells as described in your letter dated April 28, 1988. This office waives the 50-foot grout seal requirement and authorize§ the use of PVC casing.

The annulus of each well must be sealed in accordance with the description in your letter of April 28. The wells must be drilled by a driller licensed in the State of Nevada. Full compliance with the remainder of the Statutes and Regulations is required. Upon project completion, the subject wells must be plugged properly and abandoned as required under Part 14 of the Regulations. Please include as accurate a description as possible of the location of each well on the completion reports. It is expressly understood this authorization does not relieve the operator of the permitting requirements of other State, federal and local agencies. Any additional monitor wells will require a waiver from this office.

If any questions arise, please do not hesitate to contact this office at 486-7052.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Quinn", written over a horizontal line.

G.W. Quinn  
Chief Engineer

GWQ/mm

April 28, 1988

Nevada Department of Conservation  
and Natural Resources  
Division of Water Resources  
1515 East Tropicana Avenue  
Las Vegas, Nevada 89119

88-2120.10

Attention: Mr. Bill Quinn

Dear Mr. Quinn:

Requested herein is a waiver for the construction of three monitor wells and two soil borings to be located in the SE 1/4 of ~~the SE 1/4 of~~ Section 9, Township 21 South, Range 61 East, MDB&M. The wells are being installed at the request of our client, ARCO Petroleum Products as part of a characterization of the site for divestment purposes.

The depth to ground water is anticipated to be 15 feet. The wells will be constructed with 4-inch PVC casing, with the total depths of the wells being 35 feet below land surface. A 5-foot bentonite seal will be placed above the well screen and gravel pack within the annular space. The wells will be finished flush with land surface and set within christy boxes. A cement surface seal will extend from an anticipated depth of 10 feet. In addition, locking devices will be incorporated within the monitor well design.

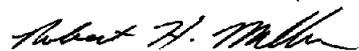
The soil borings will extend to the water table for the purpose of collecting soil samples for analysis. When completed, the soil borings will be backfilled with a neat cement.

The length of the investigation will not exceed 45 days; however, the duration of time that the monitor wells will be in use at the site is at the discretion of ARCO.

If you have any questions regarding the waiver requested herein, please do not hesitate to contact me.

Sincerely,

The MARK Group  
Engineers & Geologists, Inc.



Robert H. Miller  
Project Geologist

cc: Tim Potter, ARCO

April 28, 1988

Nevada Department of Conservation  
and Natural Resources  
Division of Water Resources  
1515 East Tropicana Avenue  
Las Vegas, Nevada 89119

88-2117.10

Attention: Mr. Bill Quinn

Dear Mr. Quinn:

Requested herein is a waiver for the construction of monitor wells to be completed as part of an investigation required under the enclosed Division of Environmental Protection Order dated April 15, 1988 addressed to William M. Calvert of National Convenience Stores, Inc.

Initially, six on-site monitor wells will be constructed on May 6, 1988. Additional off-site monitor wells may need to be installed dependent upon data obtained on-site.

All monitor wells will be completed to a total depth of 20 feet with three-inch PVC casing. Ground water is anticipated to be encountered at a depth of approximately eight feet below land surface. The well screen will extend from a depth of five 5 feet to 20 feet to enable the measurement of any free floating product on the water table. As a result, a bentonite seal will be placed from 4 to 5 feet and a cement surface seal will be incorporated from a depth of 4 feet to land surface. The monitor wells will be constructed in accordance with the October, 1987 State of Nevada, Division of Environmental Protection Hydrocarbon Cleanup Policy, a copy of which is enclosed.

The on-site monitor wells will all be located within the NW 1/4 of the NE 1/4 of Section 29, Township 21 South, Range 62 East, MDB&M. Potential off-site wells, if required will likely be located within the same quarter, quarter section, or the SW 1/4 of the SE 1/4 of Section 20, Township 21 South, Range 62 East, MDB&M; however, the exact location of any off-site wells cannot be determined until a review of the on-site data is made.

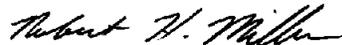
Nevada Department of Conservation  
and Natural Resources  
Project No. 88-2117.10  
April 28, 1988  
Page two

The length of this investigation is dependent upon the extent of product found, if any, in the subsurface. The length of the investigation is at the discretion of the Division of Environmental Protection.

Please note the schedule for completion of the investigation as specified in the Order. Your prompt attention to this matter will be greatly appreciated.

Sincerely,

The MARK Group  
Engineers & Geologists, Inc.



Robert H. Miller  
Project Geologist

RHM:lb

Enclosures as stated

cc: Mr. Bill Calvert

STATE OF NEVADA  
DIVISION OF ENVIRONMENTAL PROTECTION  
HYDROCARBON CLEANUP POLICY

October, 1987

INTRODUCTION

The Following is policy developed by the Nevada Division of Environmental Protection (DEP) regarding the regulatory status of hydrocarbon contaminated soils and groundwater and the resultant remedial actions.

This policy was developed in response to the increasing number of leaking underground storage tank systems and other spillage which has resulted in significant amounts of hydrocarbon contaminated soils and, to a lesser degree, hydrocarbon contaminated groundwater in Nevada.

It is the goal of the DEP to provide a clear regulatory framework and rationale to facility owners, consultants, contractors, local agencies and the general public to insure the sound management and remediation of contaminated soils and groundwater.

It must be realized that these problems often involve very complex, natural and man-made systems which require that decisions be evaluated on a site specific, case by case basis. Additionally, research is ongoing regarding contamination and how it relates to potential risks to public health, safety, and the environment. Presently, there are no nationally defined criteria limits for the detection, sampling and cleanup of petroleum contamination problems. This policy is written with inherent flexibility in order to incorporate new information as it becomes available.

STATEMENT OF NEED

In the last three years the DEP has been involved in over fifty major enforcement actions and hundreds of minor actions involving the release of hydrocarbons to the environment. The Nevada water pollution control law is currently used to address these incidents. These regulations are written in a broad overview in order to address the varied types of surface and subsurface pollution which may occur. The DEP has determined that a need exists to develop a specific, formal cleanup framework and associated criteria for hydrocarbon contamination to facilitate the transfer of information from the regulatory agency to the facility owner or his agent. This will insure a consistent application of hydrocarbon regulatory requirements throughout the State based upon specific site information and will delineate the responsibilities of both the facility owners and the DEP.

## EXCLUSIONS

This policy applies only to contamination due to hydrocarbons, including petroleum, releases which are determined to be nonhazardous based upon the guidelines outlined in 40 C.F.R. part 261. Releases determined to be hazardous are subject to the requirements of the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The DEP may require, at its discretion, a determination of hazard to insure the proper application of appropriate remedial action requirements. The DEP also recognizes that not all spill incidents require remediation. Many times a decision regarding remediation will be left to the best professional judgement of the on scene coordinator or the regulatory project manager given the following policy guidelines.

This policy applies to soil and groundwater contamination emanating from hydrocarbon sources within or resulting in disposal at facilities within the jurisdictional boundaries of the DEP. Local health, fire and building entities may enact policy or regulations stricter than those outlined.

## REPORTING

Chapter 445, Section 4 of the Nevada Administrative Code (NAC) for water pollution control requires any person who owns or operates a Facility to notify the Administrator of the DEP as soon as possible (within 24 hours) of the following:

1. A release to the soil or surfaces of land in a quantity greater than 50 gallons of petroleum product;
2. Discovery of petroleum product in the groundwater or in at least 10 cubic yards of soil.

## POLICY

### I. Tank and System Testing

The testing of tanks and associated system piping and vents must be conducted in accordance with Chapter 329 of the National Fire Protection Association (NFPA). This requires a precision test be conducted and does not recognize other methods such as a pressure test. A precision test must take into consideration the temperature coefficient of product expansion, tank end deflection, water table considerations or detect a leak as small as 0.05 gallons per hour.

Numerous testing methods are commercially available which comply with NFPA 329. EPA is presently developing evaluation criteria for the testing of these methods.

It is strongly recommended that if, through the application of a precision test, a leak is detected the DEP be immediately notified. In any event, if the spill criteria outlined under the reporting section is met, notification must be conducted.

Currently, there is no requirement for the testing of tanks on a regular basis. EPA has issued proposed regulations regarding this matter which are expected to become final in mid-1988.

## II. Tank Closure and Assessment

All underground storage tanks which are to be no longer used or are not expected to be used for a period longer than five (5) years shall be taken permanently out of service. This shall be accomplished by pumping all liquids, sludges and solids from the tanks, the piping disconnected and the tanks removed from the ground. Recognized fire and explosion hazard precautions must be undertaken along with any county or local requirements pertaining to tank removal. The tanks may be sold to a legitimate tank or scrap metal recycler approved by the DEP or disposed of in a Class I sanitary landfill with the approval of the State and local solid waste authorities. Placing a used tank back into the ground may be prohibited in light of the EPA's interim prohibition on the installation of unprotected underground tanks (40 C.F.R. part 280).

After the tank removal is complete an assessment shall be made as to the integrity of the removed tanks and the extent of leakage and/or spillage of product in the vicinity therein. This assessment can be made visually or by the use of vapor analyzers or analytical sampling. The DEP shall be notified if the criteria outlined under reporting is met.

In accordance with 40 C.F.R. part 280, notification of tank removal must be made to the State within 30 days. Failure to do so can result in a fine of \$10,000 for each notification.

## III. Sampling

The DEP requires that at it's direction the following minimum analyses be performed on soil and water contaminated with hydrocarbons:

- A. All reportable incidents: Total Petroleum Hydrocarbons (TPH), EPA method 8015 (modified);
- B. Leaded product only: Extraction Procedure for Metals Toxicity, for the parameter of lead only, 40 C.F.R. part 261, Appendix II, (S.W. 846, Vol. C, Subchapter 7.4).
- C. Used oil incidents: Extraction Procedure for Metals Toxicity, for the parameters cadmium, chromium, lead, mercury, arsenic, barium, selenium, silver, 40 C.F.R. part 261, Appendix II, (S.W. 846, Vol. C, Subchapter 7.4).

- D. All reportable incidents suspected of or effecting potable or drinking quality aquifers: Purgeables, EPA Method 624, (S.W. 846).

(In some cases analysis for halogenated solvents or other chemicals of interest may be required).

Note: Any contaminated soil and/or groundwater that exhibits the characteristics of a hazardous waste as specified in 40 C.F.R. part 261 must be handled, operated, transported, stored, disposed of and/or recycled as a hazardous waste and are not subject to this policy.

D. Sample locations shall consist of the following:

1. From a tank excavation where contamination has been observed- One composite sample from the excavation bottom and one sample from the area of suspected highest concentration.
2. Borehole- Sample subsurface every five (5) feet using a modified split spoon sampler or similar tool.
3. Water sample- From a properly constructed monitoring well (figure 1) or other source as approved by the DEP.
4. Surface spill- A composite sample shall be obtained which adequately characterizes the chemical quality of the spill area both horizontally and vertically.

Note: Proper sampling and preservation techniques must be utilized. Contact the designated analytical laboratory for additional information. A composite sample is defined as a number of random samples which are initially collected from a waste area and combined into a single sample, which is then analyzed for the major chemicals of concern. The number and location of individual samples must be sufficient enough to adequately represent the chemical quality of the entire spill area.

#### IV. Soil Removal

The DEP may require soil removal if total petroleum hydrocarbon concentrations (TPH) in the soils are in excess of 100 mg/kg (ppm). The determination of removal shall be based upon the following site specific information:

1. Depth to groundwater: Depth to the nearest occurrence of water saturated soils. This includes perched water;

2. Quality and use of the affected groundwater: Inorganic and organic quality as well as present and potential use of the aquifer for drinking water, irrigation, etc.;

3. Distance to the nearest drinking water well:  
Distance to the nearest well irregardless of gradients.  
Is the well presently used for drinking water purposes  
and what is the estimated number of users?;

4. Soil type and estimated permeability: Types of soils  
encountered throughout the profile to groundwater in  
terms of it's texture, permeability, homogeneity, etc.  
is a major factor in migration velocity, attenuation and  
the potential for groundwater contamination;

5. Annual precipitation: Annual precipitation, annual  
evaporation, precipitation type (snow, rain) and  
potential for short term, high intensity events are all  
parameters which may influence the driving forces for  
contaminant migration;

6. Age and condition of the hydrocarbon contaminant:  
The age of the product and its amount of degradation has  
a direct bearing on the potential for the migration of  
that product as well as future negative impacts to  
groundwater and public health and safety;

7. Extent of the contaminated area (vertical and  
horizontal): A determination of the extent of  
contamination must include definition of both soil and  
groundwater contamination. This can be accomplished by  
the use of wells, soil gas surveys, etc.;

8. Present and future land use: Present and proposed  
land use is a major factor in determining the level of  
remediation a given parcel is subject to;

9. Migration potential via preferential routes (i.e.  
utility lines, road base, conduits, etc.): These routes  
can drastically effect the movement and occurrence of  
product in the subsurface environment and can have  
direct impacts to public health and safety;

10. Hydrocarbon product type: Product type has a direct  
bearing on the type of remediation proposed. Due to the  
volatility of some products, remediation can be  
accomplished via simple venting of the soils whereas  
other products may require removal and land farming.  
This also has a significant bearing on the potential for  
a dissolved product plume in the groundwater;

11. Vapor/explosion/safety hazard: If a safety hazard is identified the DEP will require an immediate remediation of the problem;

12. Structural impediments such as foundations, roadways, pipelines etc. which may impede complete soil removal: In some instances structural impediments make soils removal difficult or impossible. It is the goal of the DEP to make decisions that are reasonable in regard to the cost verses benefits of soil removal in these situations.

In certain circumstances, the DEP will consider alternatives to soil removal. In situ biodegradation, soil venting and in situ chemical treatment and other methods shall be examined as viable and desirable alternatives to soil excavation and disposal.

#### V. Soil Disposal

Excavated soils contaminated with hydrocarbon product which are not hazardous may be disposed of in a State recognized Class I (2,000 user equivalents or more) sanitary landfill (table 1) with the approval of the State and local solid waste authorities (table 2). This material may require treatment prior to ultimate disposal. In some areas, treatment via land farming (i.e. windrowing soils and allowing for volatilization) and other methods may require approval and permitting from State or local air quality authorities.

Innovative disposal alternatives must meet with the approval of the DEP and appropriate local jurisdictions prior to the wastes final disposition. Such alternatives must be in accordance with applicable federal, State and local regulations.

#### VI. Monitoring Well Installation

Monitoring wells shall be installed at a facility whenever one or more of the following conditions listed below is encountered. Well design shall conform to that shown in figure 1 and requirements outlined by the State Division of Water Resources. The Division of Water Resources requires that a waiver be obtained for environmental purposes for the placement of a casing other than steel and for a sanitary seal less than 50 feet. The DWR also requires that the driller be State licensed. The specific number of wells required shall be left to the discretion of the DEP based upon the site specific conditions outlined in part III and the following conditions in general:

1. Over 500 mg/kg TPH encountered at the capillary fringe or deeper;
2. Depth to groundwater, soil type and volume of spillage is such that there is a high probability of product reaching the saturated zone;
3. Free product is noted at the saturated zone during excavation;
4. Nearby offsite monitoring wells or potable wells indicate contamination.

The DEP reserves the right to require well installations in circumstances other than those specified above to protect public health and safety and environmental quality.

### UII. Free Product

Any time free product is encountered on the groundwater in the formation in excess of one (1) inch (measurement accuracy .01 feet), a recovery action must be undertaken. This action must include delineation of the plume boundaries, characterization of the product and the design and implementation of an extraction/remediation system. Discharge of affected groundwater and disposal or recycling of recovered product must conform to applicable federal, State and local requirements including fire and building codes.

Identified explosion or vapor hazards must be addressed and remediated immediately.

### UIII. Dissolved Product

Dissolved hydrocarbon product may require remediation any time it is encountered in a potable or drinking water quality aquifer and benzene, ethylbenzene, xylene or toluene concentrations are equal to or in excess of EPA recommended maximum contaminant levels (MCL's) or maximum contaminant levels (MCL's).

Discharge of affected groundwaters to surface waters shall contain no more than 1.0 mg/l TPH. Discharge to a publicly owned treatment works (POTW) shall contain no more than 10.0 mg/l TPH or the POTW discharge limit, whichever is less. Reinjection of affected waters to the groundwater shall be handled on a case by case basis by the DEP.

### IV. Local Authorization

This policy does not relieve the responsible parties of notification or permitting requirements to County or local entities. In some situations these entities may be the lead agency in project oversight and/or enforcement. Local involvement in these situations can be far reaching, addressing such issues as fire suppression, fire safety, construction, discharge monitoring, permitting, worker safety, etc. The DEP recommends that when in doubt, notify the appropriate regulatory agencies:

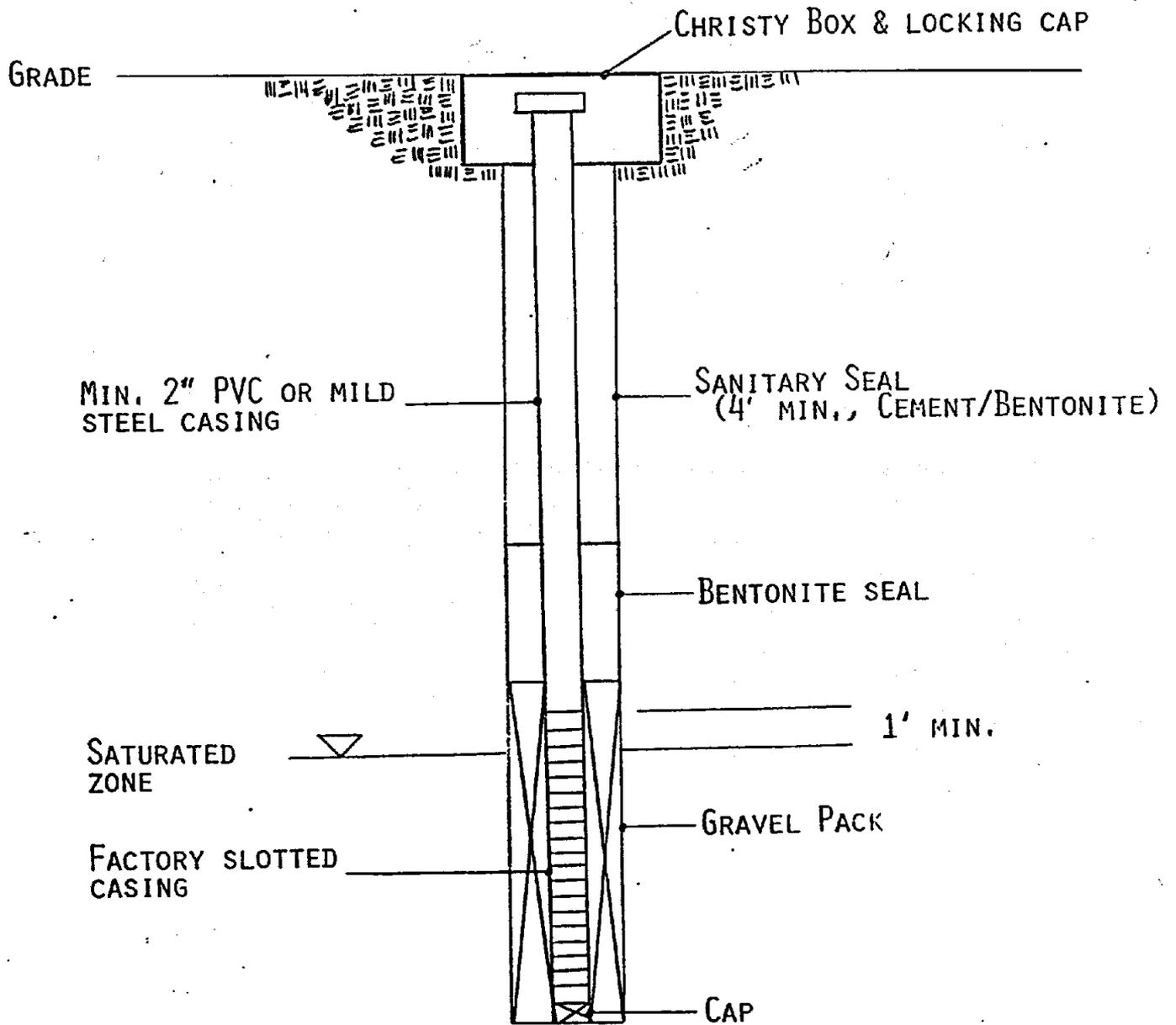
Nevada Division of Environmental Protection  
Attn: Underground Tank, Remedial Action Program  
201 South Fall Street  
Carson City, Nevada 89710  
(702) 885-4670

Clark County District Health Department  
Attn: Mr. Felix Havis  
P.O. Box 4426  
Las Vegas, Nevada 89106  
(702) 385-1291

Washoe County Health Department  
Attn: Mr. Bob Sack  
P.O. Box 11130  
Reno, Nevada 89520  
(702) 328-2400

It is also recommended contact be made with local fire prevention agencies within the area.

FIGURE 1  
TYPICAL MONITORING WELL DESIGN



\*NO SCALE

TABLE 1

NEVADA CLASS I (2000 USERS OR MORE) SANITARY LANDFILLS

Carson City- Contact Mr. John Hastie (702) 882-3809

Churchill County (Fallon)- Contact Churchill County Commission (702) 423-6584

Clark County (Sunrise, Boulder City)- Contact Mr. Felix Havis (702) 385-1291

Douglas County (Minden/Gardnerville)- Contact Public Works Dept. (702) 782-9000

Elko County (City)- Contact Elko City offices (702) 738-5176

Humboldt County (Winnemucca)- Contact the Winnemucca City offices (702) 623-6333

Lander County (Battle Mountain)- Contact Lander County Commissioner (702) 954-2447

Lyon County (Fernley, Yerington, New Moundhouse)- Contact the Lyon County Road Dept. (702) 577-2362

Mineral County (Hawthorne)- Contact Hawthorne City (702) 945-2486

Nye County (Pahrump, Tonapah)- Contact Nye County (702) 727-5001

Washoe County (Mustang, Lockwood)- Contact (702) 328-2400

White Pine County (Ely City)- Contact (702) 289-2430

TABLE 2

STATE AND APPROVED LOCAL SOLID WASTE AUTHORITIES

Nevada Division of Environmental Protection  
Attn: Waste Management Section, Solid Waste  
210 South Fall Street  
Carson City, Nevada 89710  
(702) 885-4670

Clark County District Health Department  
Attn: Solid Waste  
P.O. Box 4426  
Las Vegas, Nevada 89106  
(702) 385-1291

Washoe County Health Department  
Attn: Solid Waste  
P.O. Box 11130  
Reno, Nevada 89520  
(702) 328-2400



DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION

201 South Fall Street

Carson City, Nevada 89710



April 15, 1988

William M. Calvert  
Gasoline Marketing Manager  
National Convenience Stores, Inc.  
P.O. Box 758  
Houston, TX 77001

Certified Mail No. P 568 575 203  
Return Receipt Requested

Dear Mr. Calvert:

The enclosed Finding of Alleged Violation and Order issued by the Administrator of the Division of Environmental Protection, pursuant to Nevada Revised Statutes (NRS) 445.214, 445.317 and 445.324, requires compliance by the National Convenience Stores, Inc. with the terms and conditions of the Order by the dates specified.

The Finding and Order were developed as a result of the discovery of fuel products in the groundwater down gradient of the Stop-N-Go Store No. 156, located at 4615 E. Tropicana in Las Vegas, NV.

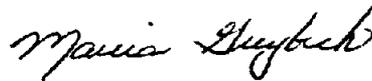
Any violation of the terms of this order could subject National Convenience Stores, Inc. to an action for appropriate relief pursuant to NRS 445.327, NRS 445.331 or NRS 445.334.

This order is final and not subject to review unless, within thirty (30) days after the date such order is served, a request by written petition for a hearing is received by the State Environmental Commission, 201 South Fall Street, Capitol Complex, Carson City, NV 89710.

William M. Calvert  
National Convenience Stores, Inc.  
April 15, 1988  
Page 2

If you have any questions concerning this matter, please  
contact me at (702) 885-5872.

Sincerely,



Marcia Greybeck  
Environmental Management Specialist  
Waste Management Section

MG/sb

Enclosures

cc: Roland Westergard  
L.H. Dodgion  
Marta Adams  
Environmental Commission  
EPA, Region IX  
Clark County Health Dept.  
NV Div. of Emergency Management

IN THE MATTER OF )  
NATIONAL CONVENIENCE STORES, INC. )  
STOP-N-GO STORE NO. 156 )  
LAS VEGAS, NV )

FINDING OF ALLEGED VIOLATION

- I. This Finding is made on the basis of the following facts, to wit:
- A. The State of Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, under the authority of Nevada Revised Statutes (NRS) 445.214 subsection 1 has the power and duty to administer and enforce the provisions of NRS 445.131 to 445.354 inclusive and all rules, regulations and standards promulgated by the Commission and all orders and permits promulgated by the Department.
  - B. NRS 445.221 "Unlawful discharge of a pollutant without a permit."  
  
Except as authorized by a permit issued by the Department under the provisions of NRS 445.131 to 445.354 inclusive and regulations promulgated under such sections by the Commission, it is unlawful for any person to discharge from any point source any pollutant into any waters of the State.
  - C. On September 30, 1987, Centel personnel reported strong fuel vapors in a telephone vault approximately 50 yards east of the Stop-N-Go convenience store located at 4615 E. Tropicana in Las Vegas, NV. Per a letter dated March 3, 1988, from National Convenience Stores, Inc., further investigations revealed gasoline product in an observation well indicating pollution of the groundwater.
  - D. Reports by Morrel Fuel Systems dated October 5, 1987, and by Petroleum Systems & Maintenance, Inc. dated January 29, 1988, indicate leaks in the underground storage tanks and product lines located at the Stop-N-Go store.

- II. On the basis of the facts listed above, the Administrator of the Division of Environmental Protection finds that National Convenience Stores, Inc. is in violation of NRS 445.221 for the unauthorized discharge of pollutants to surface and/or groundwaters of the State.

April 14, 1988  
Date

Marcia Greybeck  
Marcia Greybeck  
Environmental Management Specialist  
Waste Management Section

IN THE MATTER OF )  
NATIONAL CONVENIENCE STORES, INC. )  
STOP-N-GO STORE NO. 156 )  
LAS VEGAS, NV )

ORDER

The following order is issued this date pursuant to the powers and duties vested in the Director of the Department of Conservation and Natural Resources by Nevada Revised Statutes (NRS) Chapter 445.214, subsection 1 and 445.216, subsection 8, delegated to the Division of Environmental Protection pursuant to NRS Chapter 445.216 subsection 9, and in accordance with NRS Chapter 445.307, NRS 445.317 subsection 1 (a) and NRS 445.324.

On the basis of the Finding of Alleged Violation attached hereto and made a part of this Order, the Administrator of the Division of Environmental Protection, pursuant to authority delegated to him by the Director, Department of Conservation and Natural Resources, has determined that National Convenience Stores, Inc. is in violation of NRS 445.221, discharge of a pollutant without a permit.

IT IS HEREBY ORDERED:

That National Convenience Stores, Inc. complete the following acts by the dates specified:

1. Immediately cease and desist from the discharge of all petroleum products into surrounding soils, groundwaters or surface waters. Waters discharged incidental to recovery operations may not contain hydrocarbons in excess of 1.0 ppm, unless it is discharged to the sanitary sewer in which case the local sewer ordinance limitation will apply.
2. By April 29, 1988, submit a report to the Division of Environmental Protection which includes the following:
  - a. A plot plan of the facility showing the location of all tanks, pumps, and lines. Plot plan is to be to scale and scale noted on plan.
  - b. Locations and nature of leaks detected;
  - c. Description of repairs completed;
  - d. Description of all tests conducted;

- e. Analysis of fuel inventory data for the past six months and an estimate of the total volume of product lost;
  - f. A description of actions already taken to recover lost product and to otherwise mitigate the effects of the fuel leak;
3. By May 27, 1988, submit to the DEP the results of an investigation to delineate the extent of contamination in the soil profile, groundwater and surface waters. The investigation must identify the boundaries of the contamination plume, depths to groundwater and the rate and direction of plume migration.
  4. By May 27, 1988, submit to the DEP for approval a recovery and mitigation plan based on the findings of the investigation required in Item 3. The plan shall provide for the removal of hydrocarbon contamination from affected surface and groundwaters; and proper treatment or disposal of contaminated soils.
  5. Implementation of the plan identified in Item 4 shall commence within 30 days after approval by the DEP. Recovery operations shall continue until the DEP determines that an acceptable level of cleanup has been achieved.
  6. Monitoring of the site and of recovery operations shall be accomplished in accordance within the following schedule:

<u>Element</u>	<u>Designated Installations</u>	<u>Frequency</u>
Free product thickness	Each Well	Weekly for weeks 1,2,3 Bi-weekly thereafter
Water level elevations	Each Well	Weekly for weeks 1,2,3 Bi-weekly thereafter
Volume of product and water pumped	Intake of oil/water separator and product recovered from oil/water separator (if applicable)	Weekly upon commencement of pumping

Total petroleum hydrocarbons	At the point of discharge from final state of recovery/treatment process	Weekly for weeks 1,2,3 Bi-weekly thereafter
Total petroleum hydrocarbons	Recovery well prior to any treatment units	Once during the first week of recovery pumping monthly thereafter

7. Commencing June 15, 1988, submit monthly progress reports to the DEP regarding the status of the recovery and cleanup operations. Monitoring results shall be submitted with the monthly reports.

4/15/88  
Date

L.H. Dodgion  
L.H. Dodgion, Administrator  
Division of Environmental Protection