



Missouri
Department of
Natural Resources

STATEMENT OF BASIS

PROPOSED FINAL REMEDY AND RELEASE FROM CORRECTIVE ACTION OBLIGATIONS

NESTLE PURINA PETCARE COMPANY
ONE CHECKERBOARD SQUARE
ST LOUIS, MISSOURI
EPA ID# MOD000302281

Facility Type: Pet Care Product Manufacturing

Contaminants: Toxaphene, benzo(a)pyrene and dibenz(a,h)anthracene, benz(a)anthracene, and benzo(b)fluoranthene,

Media: Surface Soil

Proposed Final Remedy: No Further Action with Institutional and Engineering Controls

INTRODUCTION

This Statement of Basis describes the proposed corrective measures (proposed final remedy) for the Nestle Purina PetCare Company (Nestle Purina) facility in the City of St. Louis, Missouri. Reasons for recommending the proposed remedy are also presented. The Missouri Department of Natural Resources (Department) prepared this Statement of Basis as part of the requirements of Code of Federal Regulations 40 CFR 124.7, incorporated by reference in Code of State Regulations 10 CSR 25-8.124(7).

This document highlights the information that is presented in more detail in the facility Administrative Record. Among other documents, the Administrative Record includes the approved Updated Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) Report, dated July 28, 2006, and the approved RFA Soil Investigation Report, dated February 19, 2009. The Department invites the public to review the Administrative Record for a more complete understanding of the historical environmental issues and corrective action activities that have been conducted at the Nestle Purina facility. The Administrative Record locations are provided at the end of this document.

The Department invites the public to review and offer written comments on the proposed final remedy and release from corrective action obligations from August 23, 2013 to September 23, 2013. A public hearing has not been scheduled; however, anyone can request a public hearing about the proposed final remedy and regulatory release during the 30-day public comment period. The Department will approve a final remedy for the facility only after the

public comment period has ended and all public comments have been reviewed and addressed in writing by the Department. The facility will be released from its corrective action obligations only after the approved final remedy has been implemented. Public participation information is provided in detail at the end of this document.

FACILITY DESCRIPTION

The Nestle Purina PetCare facility is located at Checkerboard Square in St. Louis, Missouri. The property is industrial zoned and occupies approximately 50 acres. The geographic coordinates for the site are 38°37'30'' North latitude and 90°12'30'' West longitude. A site location map is included as Figure 1, and a facility map is included as Figure 2.

The site is bordered by Tucker Boulevard on the West and Chouteau Avenue on the south. The I-64/Hwy 40 is located 1/2 block north of the site and I-55/I-44 is located one block east. Land use of the adjacent property is primarily industrial and commercial. The site includes a green space area for employees and numerous parking lots.

FACILITY HISTORY

The company began in 1894 as the Robinson-Danforth Commission Company and produced horse and mule feed. The company moved to its present location at 8th and Gratiot Streets (Checkerboard Square) in 1896. In 1898, the company began manufacturing whole wheat breakfast cereals and changed its name to Ralston Purina Company in 1902. Over several decades, Ralston expanded the original site of the company by purchasing additional properties from various nearby businesses surrounding Checkerboard Square. These businesses included a stove manufacture, several service and filling stations, and a truck service center. In 2001, Ralston was purchased by Nestle and became Nestle Purina PetCare Company, hereafter referred to as Nestle Purina. The company continues to manufacture and sell pet care products. As part of the research facilities, Ralston/Nestle Purina operated an interim status hazardous waste container storage area for lab waste produced at the research and testing laboratories.

REGULATORY HISTORY

Ralston/Nestle Purina previously operated a hazardous waste container storage area under the interim status portions of the federal and state hazardous waste laws, 40 CFR Part 265 and 10 CSR 25-7.265. When Congress passed the federal law governing hazardous waste management in 1980, all existing facilities that treated, stored, or disposed of hazardous waste in a manner that would necessitate a hazardous waste permit were required to get such a permit. Because of the large number of existing facilities, Congress set up requirements which allowed these facilities to operate temporarily under "interim status" until they received their permit. Nestle Purina submitted their RCRA Part A permit application in November 1980, and RCRA

Part B permit application on October 24, 1988. Thereafter, Nestle Purina decided not to pursue a hazardous waste permit and to close the unit that would otherwise be subject to permitting.

In January 1996, the Department accepted Ralston/Nestle Purina's closure certification for its hazardous waste container storage area. Nestle Purina is subject to corrective action by virtue of having completed closure of its interim status hazardous waste management unit after the effective date of the Hazardous and Solid Waste Amendments to RCRA. Nestle Purina is not subject to the hazardous waste permitting requirements of the Missouri Hazardous Waste Management Law or RCRA for post-closure care by virtue of having "clean closed" its interim status hazardous waste management unit. The following is a timeline of important dates in Nestle Purina's regulatory history:

- November 1980 – Nestle Purina submitted a RCRA Part A Permit Application.
- October 24, 1988 – Nestle Purina submitted a RCRA Part B Permit Application.
- March 10, 1992 – CDM Federal Programs Corporation prepared a *Final Report for Environmental Priorities Initiative Preliminary Assessment Activity at Ralston Purina Company, St. Louis, Missouri*, on behalf of EPA.
- April 13, 1993 – PRC Environmental Management, Incorporated, prepared a *RCRA Facility Assessment for Ralston Purina Company, St. Louis, Missouri*, on behalf of EPA.
- May 4, 1993 – EPA submitted a letter to the Department presenting the findings of the RFA and recommending four Areas of Concern (AOCs) for further action.
- January 6, 1995 – Nestle Purina withdrew their permit applications and submitted a closure plan for the interim status hazardous waste container storage area.
- January 22, 1996 – The Department approved the closure plan.
- October 2, 1996 – The Department confirmed certification was completed within requirements of the approved work plan and accepted the certification for closure of the hazardous waste container storage area and released Nestle Purina from financial assurance obligations for closure.
- December 23, 2004 – The Department notified Nestle Purina of their corrective action obligations under RCRA and Missouri's hazardous waste law and regulations, including addressing the remaining Solid Waste Management Units (SWMUs) and AOCs at the facility.
- May 3, 2005 – Nestle Purina notified the Department of their intent to prepare an updated RFA.
- July 28, 2006 – Burns & McDonnell, on behalf of Nestle Purina, prepared an *Updated RFA Report* that highlighted nine AOCs. Detailed information on each of these AOCs is

provided in the updated RFA. The updated RFA concluded that six of the nine AOCs did not require further action at that time. However, the former Grain Elevator/Storage Bins, former Magic Chef AOC, and the Truck Service Center required additional investigation.

- Four AOCs identified by EPA in the 1993 RFA:
 1. Five Underground Storage Tanks (UST).
 2. Former Grain Elevators/Storage Bins.
 3. Service/Filling Stations.
 4. Magic Chef.

- Two AOCs identified by the Department for further review following a visual site inspection:
 5. Hollman Paper Box Company.
 6. Truck Service Center.

- Three properties acquired by Ralston/Nestle Purina after completion of the 1993 RFA:
 7. Property between E Building and E Building Parking Lot (Formerly 8th Street).
 8. 1000 South 9th Street.
 9. 7th Street and Chouteau Avenue.

- November 13, 2007 –The Department agreed with Nestle Purina’s conclusions that six of the nine AOCs did not require further action and requested that Nestle Purina present a scope of work for conducting additional investigation for the three remaining AOCs.

- March 17, 2008 – Nestle Purina submitted additional information on the three remaining AOCs. Based on the additional information, Nestle Purina requested no further investigation at the Truck Service Center.

- April 2, 2008 – The Department determined that the additional information regarding the Former Truck Center was acceptable, and no further investigation was necessary for this AOC.

- May 19, 2008 – Burns & McDonnell, on behalf of Nestle Purina, submitted a Quality Assurance Sampling and Analysis Plan for the Magic Chef and Grain Elevator/Storage Bins AOCs.

- July 3, 2008 – The Department approved the Quality Assurance Sampling and Analysis Plan – RFA Soil Sampling.

- July 21, 2008 – Nestle Purina conducted direct-push investigation activities on at the former Magic Chef and the former Grain Elevator/Storage Bins AOCs.

- June 18, 2009 – The Department completed and transmitted to Nestle Purina the RCRA Corrective Action Environmental Indicator Evaluations (RCRAInfo Code CA750-Migration of Contaminated Groundwater Under Control and CA725-Current Human Exposures Under Control) affirming that migration of contaminated groundwater and current human exposures were under control.
- February 19, 2009 – Burns & McDonnell, on behalf of Nestle Purina, submitted an RFA Soil Investigation Report.
- June 24, 2009 – The Department approved the RFA Soil Investigation Report.

The below paragraphs summarize the soil investigation activities and sampling results conducted at the former Magic Chef and former Grain Elevator/Storage Bins AOCs during the 2009 RFA. Nestle Purina acquired the former Magic Chef property on April 4, 1944. The former Magic Chef building that remains was completely renovated, and the surface area reworked, capped/paved, or landscaped. Two direct-push soil borings were advanced to approximately 12 feet (ft) below ground surface (bgs) at the former Magic Chef AOC. These two soil borings were located in the grassy area located next to the existing building. Soil samples collected from the former Magic Chef AOC were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RCRA metals, and mercury. There were no detections of VOCs, SVOCs or mercury above analytical detection limits in either of the two subsurface soil samples. Both soil samples contained measurable concentrations of arsenic, barium, chromium, and lead. The barium, chromium, and lead concentrations were below EPA's May 2013 Regional Screening Levels (RSLs) for Residential Use. Arsenic concentrations were above the May 2013 RSLs, however, the arsenic concentrations were below regional background concentrations as presented in the publication Geochemical Survey of Missouri, Geological Survey Professional Paper 954-H, I (Tidball, 1984). Based on the analytical results and data screening, no further action was determined to be necessary for this AOC.

In 1962, a fire destroyed the former Grain Elevator/Storage Bins. After the fire, the surrounding surface area was reworked and regraded. The former Grain Elevator/Storage Bins AOC is capped/paved with concrete and asphalt and is used as a contractor equipment staging area and parking lot. A total of eight direct-push soil borings were advanced to an approximate depth ranging from 3 to 8.5 ft bgs at the former Grain Elevator/Storage Bins AOC. Soil samples were collected and analyzed for VOCs, SVOCs, herbicides, and pesticides. VOCs and herbicides were not detected above analytical detection limits in both surface and subsurface soil samples from the boring locations. Toxaphene was the only pesticide detected above EPA's May 2013 RSLs and was found in all three surface soil samples at concentrations above both residential and industrial use. Benz(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, and dibenz(a,h)anthracene were the only SVOCs detected above EPA's May 2013 RSLs for industrial use. Benz(a)anthracene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were

detected in one soil sample, but were only just above the May 2013 RSLs for industrial use. Asphalt was documented as being present in the samples during collection. The presence of crushed asphalt within the fill beneath the surface of the current parking lot was determined to be the likely source for the presence of the SVOCs. This AOC will remain capped with concrete/asphalt.

There are no known releases of contamination to groundwater at the Nestle Purina site. Soil analytical results from the RFA Soil Investigation Report are below the EPA May 2013 RSLs for protection of groundwater.

On July 25, 2013, Nestle Purina notified the Department of a heating oil UST that was properly removed July 11 and 12, 2013, during renovations of its C Research Building. Nestle Purina removed the heating oil UST, which fueled the old boilers for the C-Research Building, from a narrow space between the C-Research building and the Zappi Warehouse. The UST had a capacity of approximately 1700 gallons. According to Missouri Revised Statue 319.100, RSMo, tanks used for storing heating oil for consumptive use on the premises where stored are exempt from the definition and regulations of USTs. Nestle Purina removed and properly disposed of the UST, residual materials/sludge, and associated piping. The area surrounding the UST was over excavated to the extent practical, without compromising the C-Research building foundation.

Four soil samples were collected from the UST excavation area and analyzed for total petroleum hydrocarbons-diesel range organics, polycyclic aromatic hydrocarbons, benzene, toluene, ethylbenzene and xylenes. The soil sample results were compared to EPA's May 2013 RSLs. Benzo(a)pyrene was the only constituent present above the May 2013 RSL for residential use. All constituents, including benzo(a)pyrene, were present below the May 2013 RSL for industrial use. No groundwater was observed during UST removal activities; therefore, no groundwater samples were collected. Concrete will cover the UST area and act as a cap over the impacted material left in-place. A stairwell will be built over the excavation area.

SUMMARY OF FACILITY RISKS

This section presents a summary of the facility risks as determined by the Updated RFA and RFA Soil Sampling activities. The primary goals of the RFA were to determine if AOCs identified by EPA and the Department pose a risk to human health and the environment and if additional investigation or cleanup of the AOCs was necessary.

Human Health Risk Evaluation

The RFA Soil Sampling Report evaluated potential exposure of on-site workers and trespassers to hazardous waste constituents detected at the Former Grain Elevator/Storage Bins

AOC. The objectives of the risk assessment were to determine whether releases from the Former Grain Elevator/Storage Bins AOC pose unacceptable risks to human health and the environment and to provide information to support decisions concerning further evaluation or remedial action under current and reasonably anticipated future land use.

The current land use for those portions of the property under evaluation is non-residential. Land use is expected to remain non-residential for the foreseeable future; however, future residential land use is possible. Based on residential and non-residential land use scenarios, potential on-property receptors are current and future (business) workers, construction workers and future residents. The former Grain Elevator/Storage Bins AOC is currently capped beneath a combination of gravel, concrete, and asphalt and is not a complete contaminant exposure pathway.

From the investigations performed to date at the Nestle Purina facility and the discussion contained in the preceding paragraphs, the Department has come to the following conclusions:

1. There are no significant releases from the solid waste management units or areas of concern to the soil or groundwater at the Nestle Purina facility.
2. Concentrations of SVOCs in the surface soil at the Former Grain Elevator/Storage bins are likely due to the presence of asphalt in the samples.
3. The Grain Elevator/Storage Bins AOC is capped and is not a complete contaminant exposure pathway as long as the cap is maintained.
4. Due to uncertainties inherent in investigations, estimates and risk management, the Department and Nestle Purina propose to execute an enforceable Environmental Covenant containing certain property activity and use limitations which will be recorded in the chain of title for the property to ensure that unacceptable exposures to residual contamination do not occur in the future.

PROPOSED FINAL REMEDY

With the exception of the former Grain Elevator/Storage Bins AOC, the Department is proposing that no further remedial action is required at the Nestle Purina facility. An enforceable Environmental Covenant containing certain property activity and use limitations is proposed as the final remedy for the facility, including specific limitations related to the former Grain Elevator/Storage Bins AOC.

A draft Environmental Covenant has been prepared and will be executed by the Department and Nestle Purina and filed with the St. Louis City Recorder of Deeds on approval of the final remedy. The Environmental Covenant will prohibit residential use of the restricted area of the facility property, prohibit disturbance of the soil in the former Grain Elevator/Storage

Bins AOC without written approval from the Department, require maintenance of the existing asphalt cap in the former Grain Elevator/Storage Bins AOC, and require continued compliance with the City of St. Louis Ordinance #6677. The City of St. Louis Ordinance #6777 prohibits the use of groundwater and drilling of wells for a potable water supply. These restrictions will ensure that unacceptable exposures to residual contamination do not occur in the future.

REGULATORY DISPOSITION OF FACILITY

Once the enforceable Environmental Covenant containing property activity and use limitations is in place, the Department proposes to release Nestle Purina from further regulation as a former interim status hazardous waste treatment, storage, and disposal facility subject to the corrective action requirements of the Missouri Hazardous Waste Management Law and regulations.

PUBLIC PARTICIPATION

The Department invites the public to review and offer written comments on the proposed final remedy and regulatory release from August 23, 2013 to September 23, 2013. During the 30-day public comment period, anyone can request a public hearing about the proposed final remedy and regulatory release. To request a public hearing, please submit a written request to Christine Kump-Mitchell, P.E., at the address below. The hearing request must state what issues are to be brought up during the hearing.

Comments on the proposed final remedy and regulatory release are more effective if they point out legal or technical issues or provide information that is not in the record. Please send written comments to Ms. Christine Kump-Mitchell, Missouri Department of Natural Resources, 7545 South Lindbergh Boulevard, Suite 210, St. Louis, MO 63125-4839, or by e-mail to christine.kump@dnr.mo.gov.

At the end of the public comment period, the Department will review all written comments and any comments given at the public hearing, if one was held. The Department will write a summary and response to all comments and explain how each was addressed. The Summary and Response will be entered into the Administrative Record for the Nestle Purina facility. The Department will approve a final remedy for the site only after the public comment period has ended, all comments have been reviewed, and responses have been prepared to address the comments. The Department may modify the proposed final remedy or select another remedy based on new information or technical or legal issues brought up by the comments received during the public comment period. The facility will be released from its corrective action obligations only after the approved final remedy has been implemented.

MORE INFORMATION

The public can review and copy the Administrative Record, which includes all correspondence and reports relevant to the final remedy selection, at the following locations:

St. Louis Public Library*
Central Library
1301 Olive Street
St. Louis, Missouri
Phone: (314) 241-2288
*During normal business hours.

Missouri Department of Natural Resources*
1730 E. Elm St. (lower level)
Jefferson City, Missouri
Phone: (573) 751-3043
*File reviews must be made through a
sunshine request. Please visit
www.dnr.mo.gov/sunshinerequests.htm.

For more information about the proposed remedy or regulatory release, please contact Ms. Kump-Mitchell, by telephone at (314) 416-2464 or 1-800-361-4827. Hearing- and speech-impaired individuals may reach Ms. Kump-Mitchell through Relay Missouri at 1-800-735-2966.