



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

**100 ALABAMA STREET, SW
ATLANTA, GEORGIA 30303-3104**

September 30, 1996

4WD-RCRA

MEMORANDUM

SUBJ: Evaluation of Safety-Kleen Corporation, Tampa (24th Avenue South),
Florida facility status under the RCRIS Corrective Action Environmental
Indicator Event Codes (CA725 and CA750)
EPA I.D. Number: FLD 980 847 271

FROM: Jan Martin

THRU: Kent Williams
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I. PURPOSE OF MEMO

This memo is written to formalize an evaluation of Safety-Kleen Corporation, Tampa (24th Avenue South), Florida facility's status in relation to the following RCRIS corrective action codes:

- 1) Human Exposures Controlled Determination (CA725),
- 2) Groundwater Releases Controlled Determination (CA750).

The applicability of these event codes adheres to the definitions and guidance provided by the Office of Solid Waste (OSW) in the July 29, 1994, memorandum to the Regional Waste Management Division Directors.

Concurrence by the RCRA Branch Chief is required prior to entering these event codes into RCRIS. Your concurrence with the interpretations provided in the following

paragraphs and the subsequent recommendations is satisfied by dating and signing above.

II. HUMAN EXPOSURES CONTROLLED DETERMINATION (CA725)

There are three (3) national status codes under CA725. These status codes are:

- 1) YE Yes, applicable as of this date.
- 2) NA Previous determination no longer applicable as of this date.
- 3) NC No control measures necessary.

Region 4 has also added a regional status code to CA725 which tracks initial evaluations in which a determination is made that plausible human exposures to current contamination risks are not controlled. This regional status code is listed as "NO, not applicable as of this date." Use of the regional status code is only applicable during the first CA725 evaluation. Evaluations subsequent to the first evaluation will use the national status codes (i.e., YE, NA and NC) to explain the current status of exposure controls.

Note that the three national status codes for CA725 are based on the entire facility (i.e., the codes are not SWMU specific). Therefore, every area at the facility must meet the definition before a YE, NA or NC status code can be entered for CA725. Similarly, the regional status code, NO, is applicable if plausible human exposures are not controlled in any areas of the facility.

This particular CA725 evaluation is the first evaluation performed by EPA for the Safety-Kleen Corporation, Tampa (24th Avenue South), Florida facility. Because assumptions have to be made as to whether or not human exposures to current media contamination are plausible and, if plausible, whether or not controls are in place to address these plausible exposures, this memo first examines each environmental media (i.e., soil, groundwater, surface water, air) at the entire facility including any offsite contamination emanating from the facility rather than from individual areas or releases. After this independent media by media examination is presented, a final recommendation is offered as to the proper CA725 status code for the Safety-Kleen Corporation, Tampa (24th Avenue South), Florida facility.

The following discussions, interpretations and conclusions on contamination and exposures at the facility are based on the following reference documents: 1989 RFA Report; 1/28/93 letter from Safety-Kleen to EPA and September, 1994 RFI Workplan.

III. MEDIA BY MEDIA DISCUSSION OF CONTAMINATION AND THE STATUS OF PLAUSIBLE HUMAN EXPOSURES

Groundwater is not known to be contaminated, at this time.

Groundwater at the facility is not known to be contaminated, but there is a possibility of groundwater contamination. Prior to construction of this Safety-Kleen facility, an area of approximately 10 acres including current facility property, was disturbed from its natural state. It appears from aerial photographs taken in 1972, 1976, 1985 and 1988 that this 10 acres was excavated and backfilled with soil. There is a possibility that the onsite soil contamination is a result of the excavation and backfilling.

The facility is undergoing a RCRA Facility Investigation (RFI) because of contaminants found in soil samples taken at the facility. The possibility of groundwater contamination arises from the possibility of contaminated soils below the water table. Soil samples collected between 11 and 13 ft bls at the facility are consistent with those taken at approximately 5 ft bls.

Due to a possibility of groundwater contamination, there are plausible human exposures to possible contamination, but information available, at this time, does not indicate these exposures pose a threat under current uses. This information is as follows:

1. In the immediate area of the facility, there are two principal hydrogeologic units. If groundwater is contaminated, it is likely to be found in the upper unit, the unconfined (surficial) aquifer. It would be this aquifer which would come into direct contact with contaminated soil. The Upper Floridan is the deepest hydrogeologic unit, extending from about 50 feet bls to about 1,150 feet bls in the vicinity of the facility. The Upper Floridan is the aquifer primarily used as a source of potable water in the area. There is a confining bed between the unconfined aquifer and the Upper Floridan below.
2. In the event, groundwater is contaminated, there is no information which indicates it is contaminated at concentrations above relevant action levels. Of the five compounds found in soils at concentrations above residential action levels, one benzo[a]anthracene, had a concentration above the leachability concentration for transfer from soil to groundwater.
3. There is a water well onsite. However, bottled water is purchased for drinking water at the facility.

The facility is undergoing a RCRA Facility Investigation (RFI), in part, to investigate groundwater contamination. **Based on the above discussion, there are no plausible human exposures which must be controlled due to contaminated**

groundwater, at this time. However, if additional exposures are identified during the RFI process, it will be necessary to reevaluate this determination.

Surface water is not reasonably expected to be contaminated.

Surface water associated with the facility is not reasonably expected to be contaminated at this time. Because contamination is not reasonably expected to have occurred, **there are no plausible human exposures which must be controlled due to contaminated surface water.** However, if surface water contamination is identified during the RFI process, it will be necessary to reevaluate this determination.

Soil

Soil is contaminated onsite, and some plausible onsite and offsite human exposures do not pose a threat under current uses. There is a possibility of that onsite soil contamination is part of a larger area surrounding the facility, though offsite soil contamination is unconfirmed. One purpose of the RFI is to investigate the horizontal and vertical extent of contamination on and around the facility. The facility (approximately 3 acres) is part of a larger area (about 10 acres) excavated, back filled with soil between 1972 and 1985.

Soil onsite is contaminated at concentrations above relevant action levels. Samples taken from soil borings at the facility contained concentrations above residential action levels (risk based concentrations) as follows:

Constituent	Average Concentration (mg/Kg)	Residential Risk Based Concentration (mg/Kg)	Industrial Risk Based Concentration (mg/Kg)	Soil Screening Level: Transfers from soil to groundwater (mg/Kg)
benzo[a]anthracene	3.1	0.88	7.8	0.7
benzo[b]fluoranthene	2.3	0.88	7.8	4.0
benzo[a]pyrene	2.1	0.088	0.78	4.0
indeno[1,2,3-c,d]pyrene	1.1	0.88	7.8	35.0
dibenzo[a,h]anthracene	0.77	0.088	0.78	11.0

In addition to the soil contamination at the facility, there are plausible human exposures to this contamination both onsite and offsite. This facility is operational and there are workers onsite. However, site conditions, at this time, are such that

unacceptable threats to human health are not plausible based on several factors:

1. current use of the site;
2. the industrial risk-based concentration for soil ingestion: of the five compounds only one (benzo[a]pyrene) had an average concentration above the industrial risk-based number. The samples were taken from soil borings, below the land surface (bls). The samples were taken from approximately 5 ft bls, barring subsurface obstructions. Four of the soil borings were taken from soil underlying asphalt.
3. offsite: the facility is located in an industrial area, so industrial risk-based concentrations would apply. Sample depth taken makes offsite exposure to the possibly contaminated soil unlikely.

Based on the above discussion, there are no plausible human exposures which must be controlled due to contaminated soil, at this time. However, if additional exposures are identified during the RFI process, it will be necessary to reevaluate this determination.

Air is not reasonably expected to be contaminated.

Releases to air from soil contaminated by SWMUs and/or AOCs at the facility is not expected to be occurring above relevant action levels. **Therefore, there is no human exposure to contamination via an air route.**

IV. STATUS CODE RECOMMENDATION FOR CA725:

CA725 YE Yes, applicable as of this date

Plausible onsite and/or offsite human exposures are controlled by limited access to contaminated soils and possibly contaminated groundwater at the facility and offsite.

As discussed in Section III, limited access due to industrial use of property, on and offsite, and the depth (bls) of the soil samples are controlling human exposures to all environmental media of concern at the Safety-Kleen Corporation, Tampa (24th Avenue South), Florida facility. Because these measures are controlling human exposures to unacceptable contamination, it is recommended that CA725 YE be entered into RCRIS.

V. GROUNDWATER RELEASES CONTROLLED DETERMINATION (CA750)

There are three (3) status codes listed under CA750:

- 1) YE Yes, applicable as of this date.
- 2) NA Previous determination no longer applicable as of this date.
- 3) NR No releases to groundwater.

Region 4 has also added an additional status code which tracks the initial evaluations in which a determination is made that groundwater releases are not controlled. This regional status code is listed as "NO, not applicable as of this date." Use of the regional status code is only applicable in the first CA750 evaluation. Evaluations subsequent to the first evaluation will use the national status codes (i.e., YE, NA and NR) to explain the current status of groundwater control.

Note that the three national status codes for CA750 are designed to measure the adequacy of actively or passively (i.e., natural attenuation) controlling the physical movement of groundwater contaminated with hazardous constituent above relevant action levels. The designated boundary (e.g., facility boundary, a line upgradient of receptors, the leading edge of the plume as defined by levels above action levels or media cleanup standards, etc.) is the point where the success or failure of controlling the migration of hazardous constituents is measured. Every contaminated area at the facility must be evaluated and found to have the migration of contaminated groundwater controlled before a "YE" status code can be entered. Similarly, the regional status code is applicable if contaminated groundwater is not controlled in any area(s) of the facility.

This evaluation for CA750 is the first formal evaluation performed for the Safety-Kleen Corporation, Tampa (24th Avenue South), Florida facility. Please note that CA750 is based on the adequate control of **all** contaminated groundwater at the facility.

The following discussions, interpretations and conclusions on contaminated groundwater at the facility are based on the following reference documents: 1989 RFA Report; 1/28/93 letter from Safety-Kleen to EPA and September, 1994 RFI Workplan.

VI. STATUS CODE RECOMMENDATION FOR CA750:

CA750 YE; The possibility of groundwater contamination exists and possible releases are controlled at this time

The groundwater is not known to be contaminated, but a possibility of groundwater contamination arises from the existence of contaminated soils below the water table at the facility. The possibility of groundwater contamination extends offsite because the contaminated soil may be a result of excavation and backfilling over a 10 acre area. The facility is undergoing a RCRA Facility Investigation (RFI) because of contaminants found in soil samples and to investigate possible groundwater contamination.

In the event, groundwater is contaminated, there is no information which indicates it is contaminated at concentrations above relevant action levels. Of the five compounds found in soils above residential action levels, only one (benzo[a]anthracene) had a concentration above the leachability concentration for transfer from soil to groundwater. The table below is an abbreviated version of the table which appears in section III.

Constituent	Average Concentration (mg/Kg)	Soil Screening Level For Transfers from soil to groundwater (mg/Kg)
benzo[a]anthracene	3.1	0.7
benzo[b]fluoranthene	2.3	4.0
benzo[a]pyrene	2.1	4.0
indeno[1,2,3-c,d]pyrene	1.1	35.0
dibenzo[a,h]anthracene	0.77	11.0

If groundwater is contaminated, it is likely to be found in the upper unit, the unconfined (surficial) aquifer. It is the Upper Floridan which is the hydrogeologic unit primarily used as a source of potable water in the area. The Upper Floridan is the deepest hydrogeologic unit, extending from about 50 feet bls to about 1,150 feet bls in the below the facility.

This possibility of groundwater contamination can be considered controlled, at this time, because it is plausible that any contamination which does exist, exists below cleanup standards based on nonresidential use.

Based on the above discussion, it is recommended that CA750 YE be entered into RCRIS, at this time. However, if the RFI process reveals that groundwater releases are not controlled this recommendation will be reevaluated.