

**FACT SHEET – PROPOSED SPECIAL PERMIT FOR OCEAN DISPOSAL OF FISH
PROCESSING LIQUID WASTE**

PROPOSED OCEAN DUMPING SPECIAL PERMIT

**STARKIST SAMOA COMPANY (OD 2022-01 SPECIAL)
LOCATED IN PAGO PAGO, AMERICAN SAMOA**

I. SUMMARY

A special ocean dumping permit is being issued to StarKist Samoa Company (StarKist or permittee). The Regional Administrator of EPA Region 9 has determined that disposal of fish processing liquid wastes off American Samoa meets EPA's ocean dumping criteria at 40 C.F.R. Parts 227 and 228. This research permit authorizes the transportation and dumping into ocean waters of fish processing liquid wastes as described in the special conditions section pursuant to the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 (33 U.S.C. §§ 1401 *et seq.*) as amended (hereinafter referred to as "the Act"); regulations issued thereunder; and the terms and conditions stated below.

For this permit, the term "fish processing liquid wastes" shall refer to dissolved air flotation (DAF) sludge, presswater, and precooker water generated at the permittee's tuna cannery plant in Pago Pago, American Samoa (Facility); or any combination of the three liquid waste streams pumped from StarKist Samoa's onshore holding tanks into the ocean disposal vessel for transportation to the ocean disposal site. Previously, EPA issued an 18-month research permit to collect data characterizing the three liquid waste streams and determined that they are similar to the three historic liquid wastes from the previous ocean dumping permits issued to permittee. This special permit does not allow the disposal of other fish processing liquid wastes (i.e., butcher water), fish concentrate, other fish processing solid wastes (i.e., carcasses, entrails), or other solid materials generated from the StarKist Facility. Furthermore, this special permit does not allow the disposal of liquid or solid materials used for construction, maintenance, cleaning, or disinfecting of the equipment or spaces associated with the StarKist Facility.

Disposal operations will occur under this special permit at a designated site located 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in about 9,000 feet (1,500 fathoms) water depth as authorized by 40 C.F.R. § 228.15(m)(1). The location of this EPA-designated ocean disposal site was chosen to minimize cumulative impacts to the marine environment. During disposal of the historic fish processing liquid wastes, no significant long-term environmental impacts were found at the site during monitoring of the upper water column and the disposal plumes were shown to disperse rapidly within the ocean disposal site boundaries. StarKist will be allowed to dispose a maximum of 300,000 gallons per trip of the proposed combined fish processing liquid wastes. Based on expected production rates, the disposal vessel tank would be filled to capacity in more than two days before a trip is commenced in order to maximize efficiency of transport per trip. The additional volume of discharged water from periodic flushing of the tank to remove settled particulates on

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the bottom of the tank is considered de minimus and does not count against the per-trip volume limit; discharge during flushing operations must conform to the same discharge track (pattern) requirements as that of normal fish processing liquid waste discharge within disposal site boundaries.

This special permit will require the permittee to conduct the following activities, including but not limited to field sampling, laboratory analysis, and record-keeping (fish processing liquid waste stream data and site monitoring field observations manually uploaded to an Internet/cloud-based database) to be submitted for EPA Region 9 review and consideration for a future special permit:

1. Monitor the combined fish processing waste streams relative to constituent limits listed in the research permit, including - Total Solids, Total Volatile Solids, 5-Day Biological Oxygen Demand (BOD), Oil and Grease, Total Phosphorus, Total Nitrogen, Ammonia, pH, and Density (comparison to historic waste streams; appropriate years of operation to be determined);
2. Maintain disposal vessel navigation/tracking logs and confirm upload of vessel tracking and discharge records to confirm compliance with the permit, including no discharge of fish processing liquid waste based on pumping status during transit to the ocean disposal site or outside of ocean disposal site boundaries (clarifications for comments on the draft permit Sections 4.3, 4.4, and 4.6 from StarKist);
3. Conduct field observations during disposal trips;
4. Regulate fish processing liquid waste discharges in accordance with seasonal discharge rate requirements;
5. Conduct ocean disposal site monitoring on a monthly basis;
6. Conduct periodic confirmatory bioassays (at least two rounds of bioassays in the 18 months); and
7. Conduct confirmatory discharge plume dispersion modeling with updated ocean current data.

The final plans for sampling and analysis of fish processing liquid waste streams, associated QA/QC procedures, suspended phase bioassays, computer modeling of discharge plume dispersion, and ocean disposal site monitoring will be reviewed and approved by EPA Region 9 before commencement of ocean disposal operations, including previously submitted documents which may be confirmed or may require updates. The liquid waste stream data, bioassay data, ocean disposal site monitoring data compiled during the term of this special permit and any other information collected about the ocean disposal of fish processing liquid wastes off American Samoa will be used by EPA Region 9 to determine compliance with EPA's Ocean Dumping Regulations defined at 40 C.F.R. Parts 220 through 228 as the data is submitted for each three-month period and as an aggregate towards the end of the three (3) year period of this MPRSA special permit.

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Compliance monitoring of ocean disposal operations will be required and implemented for this special permit, including installation of a monitor/display to allow the master/operator of the vessel to independently see the position of the disposal vessel in real time relative to the center of the site and site boundary and installation of a secure (black box) system to record the total volume loaded and discharged, record continuous GPS locations during transit to and within the ocean disposal site, and monitoring the discharge rate as required by seasonal restrictions. The permittee or the master/operator of the disposal vessel shall certify that the compliance monitoring system is operational before commencement of the ocean disposal trip. The compliance monitoring data will be uploaded after completion of the disposal trip to a website database maintained by a third-party compliance monitoring contractor for review by EPA Region 9. The site monitoring data will be manually uploaded every month to the same website database described above, also accessible for review by EPA Region 9. The permittee shall be required to submit standard US Coast Guard certification documents for the proposed disposal vessel, vessel specifications describing tank configuration and discharge piping, documentation from a third party compliance monitoring contractor confirming installation and operational status of a secure (black box) GPS-based tracking and discharge monitoring system for the proposed vessel, ocean disposal site monitoring, and documentation of operational Internet-based database accessible by EPA Region 9 for review of the compliance monitoring data. These submittals, including final versions of sampling and analysis plans and site monitoring plans previously submitted, will be reviewed, and approved by EPA Region 9 within 30 days prior to commencement of disposal operations which will be the effective start date of the three (3) year period.

EPA Region 9 will update the list of endangered species (The Endangered Species Act of 1973; “ESA”; 16 U.S.C. §§ 1531 et seq.) as well as update the Essential Fish Habitat management unit areas (Magnuson-Steven Fishery Conservation Act; “MSA”; U.S.C. §§ 1801 et seq.) for future use of the current ocean disposal site and vicinity. Based on the data collected and the proposed permit requirements the effects from ocean disposal operations are not expected to have an effect on federally-listed species, or have an adverse effect on essential fish habitat due to: (1) the relative low frequency of disposal trips as compared to the frequency of other commercial maritime vessels; (2) the relative slow speed of the disposal vessel which reduces the risk of vessel strikes as compared to other faster commercial maritime vessels; and (3) compliance monitoring to ensure proper disposal/discharge at the ocean disposal site and no leaking/discharge during transport.

The Administrative Record, which includes the application package submitted by the applicant and the final research permit, and this updated fact sheet, is available on the EPA Region 9 website (<https://www.epa.gov/ocean-dumping/managing-ocean-dumping-epa-region-9>).

II. FINAL DECISION

Historically, EPA has issued a series of ocean dumping permits to StarKist to dispose of their fish cannery liquid wastes at a designated ocean disposal site near Pago Pago, American Samoa. Fish processing liquid wastes were disposed at the designated site located 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in 9,000 feet (1,500 fathoms) water depth until mid-2012 when ocean disposal was discontinued. On August 29, 2019, StarKist applied for the current ocean dumping permit to resume disposal of fish cannery liquid wastes at

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the same designated ocean disposal site near Pago Pago, American Samoa as authorized by 40 C.F.R. § 228.15(m). A public notice for the draft research permit was published on December 16, 2019; no adverse comments were received during the 30-day comment period. EPA did receive comments from StarKist on January 28, 2020, and comments from the American Samoa Environmental Protection Agency (ASEPA) transmitted by cover letter from the Governor of American Samoa on January 28, 2020 (collectively the American Samoa Government) which primarily sought clarification on certain permit provisions. EPA issued an 18-month research permit with clarified permit provisions, effective from April 6, 2021, through October 5, 2022. Current information from the research permit indicates that disposal of fish processing liquid wastes at the designated site would comply with EPA's Ocean Dumping Regulations at 40 C.F.R. Parts 227 and 228. The fish processing liquid waste analyte list for the special permit is expected to be the same as that of the current research permit.

Under the special permit, the permittee will collect compliance monitoring data associated with each disposal trip; the GPS-based compliance monitoring data will be collected by a secure (black box) system and uploaded to an Internet-based database accessible to EPA Region 9 for review of compliance with the permit. This method for aggregation of data during the research permit updates and streamlines the previous paper-based records of the previous permits; secure black box monitoring systems are standard requirements for ocean disposal operations at EPA-designated ocean disposal sites in Region 9.

The permittee must also conduct a monitoring program at the ocean disposal site, including field and laboratory analyses. Results of the site monitoring program, cumulative liquid waste stream data, confirmatory bioassays, and confirmatory modeling will be used to document the extent of effects at the ocean disposal site and whether the dumping continues to comply with EPA's Ocean Dumping Regulations. The proposed dumping during the term of the special permit is expected to have minimal impacts on human health and/or the marine environment. The primary environmental impact of the proposed discharges would be short-term increases in turbidity, inorganic nutrients, oil and grease, and ammonia during the dumping events. Past monitoring studies on the disposal of fish processing liquid wastes off American Samoa show that water quality parameters return to ambient conditions at the boundary of the disposal site following the four-hour period of initial mixing (40 C.F.R. § 227.29). To be certain that American Samoa Water Quality Standards would not be violated by the disposal of fish processing liquid wastes, the center of the disposal site was designated 5.45 nautical miles offshore, and restrictive navigation requirements, disposal rates and limitations on the liquid waste material constituents are included in the special ocean dumping permit.

III. TERMS OF THE PERMIT

The special permit will be effective for a three (3) year period from the start date of disposal operations; The permittee shall be required to submit standard US Coast Guard certification documents for the proposed disposal vessel, vessel specifications describing tank configuration and discharge

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piping, documentation from a third-party compliance monitoring contractor confirming installation and operational status of a secure (black box) GPS-based tracking and discharge monitoring system for the proposed vessel, ocean disposal site monitoring, and documentation of operational Internet-based database accessible by EPA Region 9 for review of the compliance monitoring data and ocean disposal site monitoring data. These submittals, including sampling and analysis plans and site monitoring plans previously submitted, will be reviewed, and approved by EPA Region 9 within 30 days prior to commencement of disposal operations which will be the start date of the three (3) year period for the special permit.

The conditions and special conditions of the special permit will be similar to previous permits; however, there will be some differences based on expected operational maximum capacities and updated compliance monitoring requirements.

A. Volumes of Liquid Waste Material for Ocean Disposal Under OD 2022-01

Table 1. Maximum Volume of Fish Processing Liquid Waste Authorized for Each Disposal Trip

Fish Processing Liquid Waste	StarKist Samoa Company (Gallons/trip)
Daily Maximum - Combined Waste Stream from Onshore Storage Tank	300,000 * (Approximate vessel tank capacity)

*Ocean disposal trips are expected to occur when vessel tank is filled to maximum; the expected production rate is about 130,000 gallons per day; vessel tank is expected to be filled to capacity in more than two days.

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B. Liquid Waste Material Limitations in the Permit OD2020-01

Table 2. Fish Processing Liquid Waste Constituent Limit

Storage Tank Physical or Chemical Parameter (Units)^a	StarKist Samoa Company
Total Solids (mg/L)	101,800
Total Volatile Solids (mg/L)	84,100
5-Day BOD (mg/L)	129,390
Oil and Grease (mg/L)	62,940
Total Phosphorus (mg/L)	1,750
Total Nitrogen (mg/L)	10,980
Ammonia (mg/L)	11,810
pH (pH units)	6.2 to 7.1
Density (g/mL)	0.97 to 1.03

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

IV. CALCULATION OF PERMIT LIMITS

Data from previous ocean dumping permits issued for ocean disposal of fish processing liquid wastes were used to calculate all permit limits - using maximum and minimum levels, mean, standard deviation and the number of data points. Any data values greater than or less than the mean plus or minus 2 standard deviations were considered to be outliers. Outlier data points were not used in the permit limit calculations. All procedures for calculating permit limits are discussed in EPA's Guidance Document for Ocean Dumping Permit (January 30, 1988).

V. FACTORS CONSIDERED IN REACHING THE PERMIT DECISIONS

Overview of Disposal Operations

StarKist Samoa Company proposes to dispose of fish processing liquid wastes at an ocean dump site centered approximately 5.45 nautical miles south of Tutuila Island in about 9,000 feet (1,500 fathoms) water depth as authorized by 40 C.F.R. § 228.15(m). The center coordinates of the site are: 14° 24.00' South latitude by 170° 38.20' West longitude. The fish processing liquid wastes (maximum of 300,000 gallons per trip) will be transported to the upcurrent quadrant of the site and discharged at a rate

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less than or equal to 1,400 gallons per minute, depending on the season, at a maximum speed of 10 knots, in accordance with special conditions in the research permit. The disposal vessel will discharge the fish processing liquid wastes within a target area defined by an oval-shaped track with the center axis of the oval perpendicular to the current direction. This target area for disposal is located within the boundary of the designated ocean disposal site. On each trip, the master/operator of the disposal vessel will document current direction at the center of the disposal site. He will then proceed to a point 1.1 nautical miles upcurrent of the prevailing surface current to discharge the liquid waste. The fish processing liquid wastes may be discharged only after this procedure has been conducted to ensure that the liquid waste plume has an adequate area for mixing within the disposal site boundary. Even though the ocean disposal site is outside of the American Samoa territorial sea, the MPRSA 102 research permit is designed to comply with oceanic water quality standards defined in § 24.0206(p) of the 2013 American Samoa Water Quality Standards (clarification for comments received from the American Samoa Government). This will ensure that oceanic waters inside American Samoa's territorial sea are not affected by the ocean disposal operations. Within four hours after dumping has ceased, concentrations of the fish processing liquid wastes must reach ambient levels at the disposal site boundary. After four hours, these concentrations must not exceed ambient levels at any point in the marine environment (40 C.F.R. § 227.29). EPA Region 9 will evaluate potential impacts to water quality based on the site monitoring data generated from analysis of water samples collected in accordance with the disposal site monitoring requirements of the special permit.

Compliance Monitoring under the Special Permit

The ocean disposal vessel will require the following specifications for compliance monitoring, including installation of a secure (black box) system to record the total volume loaded and discharged, record continuous GPS locations during transit to (1-minute intervals) and within the ocean disposal site (15-second intervals), and monitoring the specified discharge rate as required by seasonal restrictions in the permit. The compliance monitoring data will be uploaded to a website maintained by a third-party compliance monitoring contractor for review by EPA Region 9. These updated compliance monitoring requirements will replace the paper record-based system employed in the past and is consistent with compliance monitoring requirements at all EPA-designated ocean disposal sites in Region 9.

Prior to commencement of ocean disposal operations under the special permit, the permittee must submit documentation of installation of all required instrumentation and the black box system as well as proper operation within the specifications required by EPA Region 9. The US Coast Guard must inspect and confirm the vessel will operate in accordance with the special permit conditions. All the documentation on compliance monitoring equipment, coordination with the third-party compliance monitoring contractor, and vessel specifications and ability to operate in accordance with the special permit conditions will be reviewed by EPA Region 9 before ocean disposal operations can occur.

StarKist will be required to collect liquid waste stream samples to analyze for the required list of analytes specified in the special permit and to collect additional samples to run at least two sets of confirmatory bioassays on the combined three fish processing liquid wastes using composited samples collected from the onshore storage tank. Results of these confirmatory suspended phase acute toxicity bioassays will be used to calculate Limiting Permissible Concentration (LPC) values. The LPC values will be used to rerun

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the dilution model and confirm compliance with water quality standards at the ocean disposal site. All of this data will be uploaded to the third-party compliance monitoring contractor website database. In addition, a report will be prepared by the permittee discussing the test procedures and results of the bioassay tests and model runs. EPA Region 9 will review the collection of reports to determine whether any changes in future ocean dumping permits are necessary.

VI. EPA'S AUTHORITY TO ISSUE OCEAN DUMPING PERMITS

EPA's authority to issue ocean dumping permits, including special permits, is defined under Title I of MPRSA and at 40 C.F.R. § 220.4. The Agency must determine that the proposed dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. In addition to these requirements, EPA must evaluate each permit application to determine whether the dumping will comply with the criteria at 40 C.F.R. Part 227 and whether the designated site complies with the criteria at 40 C.F.R. Part 228. The American Samoa Fish Processing Waste disposal site was designated, through the publication of a Final Rule, on February 6, 1990 (55 FR 3948) at 40 C.F.R. 228.15(m). The designation process consisted of publication of an environmental impact statement (EIS) according to EPA's EIS policy. The draft EIS for this project was published on September 16, 1988 (53 FR 38118) and a final EIS was published on March 3, 1989 (54 FR 9083). The final rule designating the ocean disposal site was published on February 6, 1990 (55 FR 3948). EPA Region 9 will periodically evaluate all of the data and associated information to determine whether the fish cannery disposal operations comply with the special permit conditions; this evaluation will inform any additional conditions or special conditions for a future special permit prior to expiration of the three (3) year period. If unacceptable impacts are detected at the site (40 C.F.R. § 228.10), or significant permit violations are found, EPA will determine whether use of the site should be restricted (40 C.F.R. §§ 228.10 and 228.11), or whether enforcement actions should be initiated under MPRSA.

VII. ADMINISTRATIVE PROCEDURES AND THE PUBLIC HEARING PROCESS

The processing of the special permit application consists of the following actions. EPA Region 9 received a completed application (40 C.F.R. § 221). EPA Region 9 issued a tentative decision to grant a special permit (40 C.F.R. § 222.2) by which EPA documents the intent to grant an ocean dumping permit after evaluation of data collected during the 18-month period of the current research permit. Public notices are published to announce EPA's intent to issue the permit (40 C.F.R. § 222.3) in a local American Samoa newspaper (area closest to the ocean disposal site) and the information and Administrative Record on the proposed action also is posted on the EPA Region 9 website describing EPA's intent to issue a permit. A 30-day public comment period starts on the date of publication of this public notice; a request for a public hearing may also be requested during this comment period in accordance with 40 C.F.R. §§ 222.4 through 222.12. The effective date of this permit is the date ocean disposal operations will commence after EPA reviews and approves the required submittals (described above) from StarKist.

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VIII. ADDITIONAL INFORMATION

For further information on the special permit or questions pertaining to MPRSA or the EPA Ocean Dumping Regulations, please contact EPA Region 9: Allan Ota, Water Division (WTR-2-2), U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, California 94105-3901, (415) 972-3476; ota.allan@epa.gov.

PROPOSED